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THE URBAN HIGH SCHOOL PRINCIPAL: A COMPARATIVE INQUIRY INTO LEADER BEHAVIORS AND THEIR ASSOCIATION WITH STUDENT ACHIEVEMENT

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The urban high school principal: A comparative inquiry into leader behaviors and their association with student achievement

by

Charles Robert Brown

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CHAPTER I. STATEMENT OF THE PROBLEM AND REVIEW OF LITERATURE

Introduction

The decade of the 1960s proved to be a period for the critique of social myths and beliefs in American education; it was also a period for the creation of new ones. According to McNamara and Enns (67), the long-held belief in schooling as an institution which acted as a social equalizer, gave way to the belief that schooling did little to foster the cognitive abilities of students. Describing the association between academic achievement and students and their families, researchers Coleman et al. (22), Jencks (58), and Scott and Walberg (98) held that schools bring little influence to bear on a child's achievement that is independent of his background and general social context. Whether students did well or poorly in schools seemed determined, for the most part, by their families' influence and little, if at all, by anything their teachers or schools did.

What are some consequences for schools given this position by Coleman and others? It is not difficult to foresee how this belief could become self-fulfilling. Administrators and teachers believing that their school and schoolroom actions make no difference might behave accordingly.

There are researchers such as Medley (75), Rosenshine (93), Manatt (71), Drucker (25), and Berliner (6) who oppose the views that schools have little influence on student achievement. They support the idea

that academic achievement can be improved by improved teacher performance and relevant materials, and increased academic learning time for the students.

Teacher effectiveness

As Donald Medley (75) observed, the history of research on teacher effectiveness has passed through the study of teaching methods and now centers on the identification of competencies that will produce increased student gains as a product. Rosenshine (93) speaks of the same concept in terms of teacher personality, teacher-student interaction, and student attention and student mastery. Rosenshine concluded that emphasis on "direct instruction" (i.e., student contact with curriculum and curriculum materials) will garner the greatest gains as measured by student achievement.

Notable in the effort to improve student achievement via improved Richard Manatt et al. (72), has developed an articulated performance assessment system. The model emphasizes the improvement of instruction and relies heavily on supervisory observations, postconferences, and improvement targets. The Manatt Teacher Performance Appraisal System additionally stresses the preobservation conference, the establishment of identified critical work activities, and the comparisons of teachers across departments, buildings, and school districts.
ments, buildings, and school districts.

Drucker (25) espouses a system of instructional management to improve student learning. The instructional management system is based on much research which can be summarized in the following two premises:

1. All students can learn what is taught in school to a satisfactory level if teachers believe they can and if school is organized to provide varying amounts of time for each student to learn.

2. For students to be self-motivated to continue learning throughout their time, to work on tasks where they experience a high degree of success, no learning deficits are allowed to accumulate. (25:1)

Drucker theorizes that:

> Management is practice. Its essence is not knowing but doing. Its test is not logic but results. Its authority is performance. (25:1)

Finally, Berliner (6) draws heavily upon the work of the research team at the Far West Laboratory for Educational Research and Development. Through extensive observations and teacher recorded activity logs, it was revealed that certain behaviors on the part of teachers lead to higher student achievement. Berliner (6) found that increased academic learning time (ALT) was associated with student achievement. That is, increased amounts of engaged time coupled with higher success rates, result in higher achievement scores.

Leadership effectiveness

Over the past few years, a number of theoretical models have emerged addressing the phenomena of leadership effectiveness as opposed to methods, materials, or teacher behavior as a means to increase student outcomes (62, 48, 77, 34).

Halpin and Winer (48) and Kahn (60) support a dual leadership model, which is based on the theory that every collectivity must solve two basic sets of needs:

1. Instrumental needs - the mobilization of resources to achieve the task.

2. Expressive needs - the social and normative integration of group members.

To satisfy these needs, Halpin and Winer (48) and Kahn (60) identify two dimensions of leader behavior - initiating structure and consideration. Initiating structure is leader behavior that delineates the relationship between the leader and his subordinates, while establishing defined patterns of organization, channels of communication, and methods of procedure. Consideration is defined as leader behavior that indicates friendship, trust, warmth, interest, and respect in the relationship between the leader and members of the work group. Early studies of school administrators by Halpin and Winer (48) suggest that public school norms were supportive of considerate behavior. They speculate that the disinclination to stress initiating structure may reflect the fact that human relations and group dynamics are stressed in education, and that many educators tend to equate initiating structure with an authoritarian style.

Mintzberg's (78) model categorizes the behavior of the manager into ten role sets which are divided into two dimensions, the external and internal. The external dimension relates to the management function or activities which involve contact with outsiders to the school, such as parents of students, former students, and the members of various regulatory bodies. The principal's dealings with teachers, students, executive and ancillary staff in the school are coded as those which are relevant to the domestic functioning of the school or the administrative function.

Fiedler's Contingency Model is based on the belief that effectiveness depends on how well a leader's style - or way of doing things - fits the needs of the particular situation (33). Situations vary according to their favorability, which is determined by three things: 1) the quality of leader-member relations in the group, 2) how structured the group's task is, and 3) how much formal power goes with the position the leader holds. In general, as these variables increase, a situation becomes more favorable. Fiedler argues that it is a mistake to assume that task-oriented principals are patently dictatorial in their approach. To the contrary, Fiedler's research indicates that the effective task-oriented school principal may be directive, but he is not authoritarian; indeed, he apparently takes special pains to involve his staff in crucial areas of decision-making.

While as indicated, there is research being conducted to determine what school conditions lead to higher student achievement, few of these studies have been conducted in low socioeconomic/urban high school settings. An examination of the literature indicated that more research needed to be conducted in these kinds of high schools to determine what factors influence student achievement. Current statistics show that by the sixth grade, mean achievement in low socioeconomic/urban high schools is usually one or more years below national norms, and by the eleventh or twelfth grade, it is three or more years below the national average as reported by Erickson and Reller (31). This means, in turn, that large proportions of the students in urban schools terminate their formal education able to read only at or below the fifth- or sixth-grade level.

These students are functionally incapable of obtaining many jobs that require higher levels of reading or other basic skills supposedly taught in the schools. Levine (62) reported that despite the infusion of billions of dollars through federal and state projects, and despite gains made in some schools in the middle and primary grades, achievement levels at the sixth-grade and above still are extremely low in urban schools throughout the country.

One of the reasons cited by Levine (62) for this low achievement is that relatively large numbers of students from low socioeconomic families have not been prepared at home to function successfully in the educational environment commonly found in the schools.

Principal effectiveness

Questions surrounding the issue of why urban schools with poor students do not score as well as schools with more affluent students are beginning to emerge as a focus for research. It is notable that the vast majority of the research related to urban school effectiveness has focused on the behavioral expectations of teachers for their principals (66). According to Goldman (40), change efforts have been aimed at gaining the perceptions of subordinates and superordinates to determine the effective behaviors of principals. Replicating many of these perception studies, McIntyre and Grant (66) asked teachers, superintendents, and principals to rate how well principals should perform and how well the principals in their respective schools actually did perform in areas such as goal setting, staffing, allocating time and space, allocating

materials and equipment, noninstructional services, community relations, inservice training, and program development.

There have been recent efforts by educators in the Fort Worth Public School System to develop more effective schools by giving more financial responsibility to the building-level administrators (37). Site-based management is the terminology used for this decentralized approach to fiscal management. Guiterrez, Gondoli, and Benjamin (37) believe that the prime task of any administrator is to allocate resources over which he has control in such a way that maximum output will be derived. With greater control over the budget, the building principals, along with the faculty, have the flexibility to find alternative means to meet the local academic needs.

These efforts, although productive, appear to have exposed only one side of the coin.

On the opposite side, there is a scarcity of research exploring the the relationship between principal behavior and student outcomes in urban schools (71, 117, 11). Much of this research has centered on elementary schools (112). Only a handful of studies have been specifically conducted at the urban high school level, notably, by Rice and Austin (92), Coleman et al. (22), Rutter et al. (94), Martin and Willover (73), and Willis (116).

As schools become more accountable because of increased public demands for competency-based programs and "back to basics", student achievement should also improve in urban public schools. As the current statistics indicate, however, these phenomena are not occurring in a manner that would be expected. In view of these facts, there are some

questions that have to be addressed. Are urban students doomed to academic failure if both their schools and families are ineffectual in producing positive educational outcomes? Why do so many urban students score below the national norms in reading and math? Does the leadership style of the principal affect the academic performance of his students?

Statement of the Problem

For two decades, the literature of education has described the urban public school in the innercity locations as low in student achievement lacking parental involvement and interest, and plagued by low teacher morale and job dissatisfaction. Yet, there seem to be exceptions - there are some "maverick" schools in which students do perform at high achievement levels, thus, schools that are successful (20). What kinds of activities take place in instructionally successful urban schools and what part does the principal play in this success?

In a two-year study by the Consortium for Educational Leadership (23) at the University of Chicago, completed in 1975, the following conclusions were made:

1. Variables relating to type and size of schools accounted for the greatest number of differentiations in the way principals described their jobs, although socio-economic status and ethnic composition of the student body and teaching staff made a sizable contribution.

2. Personal characteristics of the principal produced the fewest differentiations.

3. The age of the principal and years in the present position yielded no significant differentiation.

4. Organizational constraints prevent the principal from becoming an effective change agent. (23:30)

The researchers still concluded that little is known about the job dimension of the principalship and their interaction with the variety of circumstances under which principals perform their tasks. On the basis of the Consortium study, Salley, McPherson, and Baehr (96) state:

> Little is known . . . to be certain, much research has been conducted . . . in an attempt to describe the work and responsibilities of the principal. But these rarely have had a broad or substantial empirical base demonstrating the interrelatedness of job function and in a variety of contextual circumstances.

What is now needed is research which probes, substantiates and clarifies existing leadership theories, so that a more comprehensive framework for understanding the behaviors of urban high school principals and the organizational climates in which they work will emerge. Further investigation of internal variables is also needed to produce some missing links in explaining the factors that contribute to successful urban high schools - internal variables as teacher time on task, the application of appropriate principles of learning and emphasis on improved instruction.

The most recent approach to studying successful schools has been the case study approach. One of the forerunners in the use of this case study approach is Edmonds (29). Although Edmond's research unlocked some interesting findings about the determinants of effective schools and principals, critics have rapidly questioned his methodology.

In a paper presented at the annual meeting of the American Educational Research Association in March, 1982, a team led by Rowan et al. (119) from the Far West Laboratory for Educational Research and Development, called for more rigorous research to link good principals and effective

schools.[1] Citing past measures of school effectiveness as having proven unreliable, these researchers suggested several ways in which to define an effective school.

First, a general recommendation was made to improve the measurement of principal leadership by describing the principal's leadership behavior in terms of concrete, school-based activities principals actually engage in, such as detailed accounts of interactions with teachers, students, and parents. This approach would involve a more complete reporting of qualitative descriptions of instructional management behaviors rather than summary reports about respondents' evaluations of behavior. Second, the researchers suggested that measurements of school effectiveness be improved by developing a multidimensional view of school effectiveness by analyzing nonacademic indicators, such as, citizenship training, development of self-esteem, and the development of self-discipline in conjunction with academic outcomes. Furthermore, when academic outcomes were used as measures of school effectiveness, it was recommended that they should be measured as consistent gains from year to year. Third, recommendations were made to resolve problems in research design. The researchers felt that future studies in school effectiveness should link research designs with situational theories of leadership. Fourth, they called for experimental study of principals' behaviors rather than correlational, "after the fact", studies.

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[1]Since this citation was not published until late in the present study and because it is important to the argument of this thesis, it is included at the end of the bibliography.

Based on these recent recommendations by Rowan et al. (119) and the review of school effects literature, the problem for this study will be to determine which factors contribute most to successful innercity high schools. The lack of specific data indicates that additional research is needed regarding the subcategories of effective urban/innercity high schools (e.g., leadership style, school climate, the monitoring of student achievement, expectations for students, etc.). The controversial results of data available on the factors contributing to effective schools in the specific area of urban/innercity high schools suggest a ripe area for investigation.

Definition of Terms

Words often have different meanings depending on their context. In the interest of clarity, the present investigation used the tentative definition of effective principals and schools to mean the achievement of goals.

Other terms were defined as:

"Ethos"--The pattern of orientations and sentiments . . . peculiar to teachers that derives from both the structure of the occupation and the meanings teachers attach to their work.

Expectations--The belief of principals and teachers that all of their students can master the basic objectives.

Improving schools--Those schools where student achievement scores were either among the highest in the city or well below the national norms but near the city average and considerably higher than most schools

with similar levels of ability among the students.

Leadership style--The underlying attitudes toward people who motivate behavior in various leadership situations as well as the specific behavior of a leader while in the process of directing and controlling the activities of a work unit.

Maintaining/declining schools--Those schools where student achievement scores either remained the same or declined over a two-year period when compared to city norms and considerably lower than most schools with similar levels of ability among the students.

Perception--The act of perceiving how a principal behaves in a given leadership situation by his teachers or other principals.

Principal--The individual who assumes direct responsibility for the maintenance and development of the educational program and supervision, and evaluation of instruction on the building level.

School climate--A set of internal characteristics that distinguishes one school from another and influences the behavior of people.

Teacher--The individual charged with the direct responsibility for the implementation of the district's curricular plan within a specific classroom and with a specific group of learners.

Urban--City center location with low socioeconomic setting.

Delimitations

The following delimitations were established for the purpose of the present study:

1. The study was delimited to six urban innercity high schools in

the city of St. Louis, Missouri.

2. The study was delimited to urban high school teachers, students, parents, principals and superintendents.
3. The study was delimited to grades nine through twelve.
4. The study was delimited to a point in time contained within the months of January and June, 1982.

Hypotheses

The present study has been designed to replicate the studies of Edmonds (29) and Rutter et al. (94) in an attempt to describe the work responsibilities of urban high school principals. Both Edmonds and Rutter et al. operationally define the successful principal as one who affects positive student outcomes by monitoring achievement scores, having high expectations for teachers and students, being a "strong leader" and emphasizing instruction. The present study will vary slightly from that of Edmond's in that high schools will be investigated rather than elementary schools and inferential as well as descriptive procedures will be used to analyze the data collected. Results will first be examined in tabular form. If substantial differences are noted in the descriptive data, the additional step of a chi-square (x^2) nonparametric statistical test of significance will be used. This test is used to determine if variables are independent of each other. Frequency counts are placed into categories as observed cases and are examined to determine if this count differs from the frequencies that would be expected by chance. If any of the research hypotheses have to be tested with the

chi-square, they will be stated in the null form.

Descriptive questions

The following questions involving descriptive data will be examined:

$Q.:_1$ Will principals of improving urban high schools exhibit a more assertive administrative style in their institutional roles than principals of maintaining/declining urban high schools?

- $Q.:_{1a}$ Will principals of improving urban high schools give more administrative support to teachers than principals of maintaining/declining urban high schools?
- $Q.:_{1b}$ Will principals of improving urban high schools put more emphasis on communicating the mission of the school to the teachers, students and parents than principals of maintaining/declining urban high schools?
- $Q.:_{1c}$ Will principals of improving urban high schools emphasize discipline more than principals of maintaining/declining urban high schools?
- $Q.:_{1d}$ Will principals of improving urban high schools emphasize a written school-wide philosophy more than principals of maintaining/declining urban high schools?
- $Q.:_{1e}$ Will principals of improving urban high schools put more emphasis on staff interaction than principals of maintaining/declining urban high schools?
- $Q.:_{1f}$ Will principals of improving urban high schools provide a more adequate supply of materials to teachers than principals of maintaining/declining urban high schools?
- $Q.:_{1g}$ Will principals of improving urban high schools put more emphasis on the accomplishment of the basic reading and mathematics objectives than principals of maintaining/declining urban high schools?

$Q.:_2$ Will principals of improving urban high schools put more emphasis on instruction than principals of maintaining/declining urban high schools?

$Q.:_{2a}$ Will principals of improving urban high schools put more emphasis on the accomplishment of thebasic reading and mathematics objectives than principals of maintaining/declining urban high schools?

$Q.:_{2b}$ Will principals of improving urban high schools put more emphasis on being task-oriented than principals of maintaining/declining urban high schools?

$Q.:_{2c}$ Will principals of improving urban high schools put more emphasis on teachers applying appropriate principles of learning than principals of maintaining/declining urban high schools?

$Q.:_{2d}$ Will principals of improving urban high schools spend more time visiting classrooms than principals of maintaining/declining urban high schools?

$Q.:_{3}$ Will principals of improving urban high schools put more emphasis on improving the school climate than principals of maintaining/declining urban high schools?

$Q.:_{3a}$ Will principals of improving urban high schools put more emphasis on cleanliness and orderliness than principals of maintaining/declining urban high schools?

$Q.:_{3b}$ Will principals of improving urban high schools put more emphasis on school-wide discipline, security and safety policies than principals of maintaining/declining urban high schools?

$Q.:_{3c}$ Will teachers from improving urban high schools be more satisfied with their work than teachers from maintaining/declining urban high schools?

$Q.:_{3d}$ Will students of improving urban high schools be more cooperative with teachers and administrators than students from maintaining/declining urban high schools?

$Q.:_{4}$ Will principals of improving urban high schools have higher expectations for teachers and students than principals of maintaining/declining urban high schools?

$Q.:_{4a}$ Will principals of improving urban high schools emphasize the mastery of basic objectives by all students more than principals of maintaining/declining urban high schools?

$Q.:_{4b}$ Will principals of improving urban high schools put more emphasis on students staying above the prerequisites to promotion than principals of maintaining/declining urban high schools?

$Q.:_{5}$ Will principals of improving urban high schools emphasize the on-going assessment of pupil progress more than the principals of maintaining/declining urban high schools?

$Q.:_{5a}$ Will principals of improving urban high schools rely more on the results of standardized and teacher-made tests to make decisions about classroom organization and instructional strategies than principals of maintaining/declining urgan high schools?

Inferential postulates

In addition to using descriptive procedures to examine and determinants of effective schools, inferential procedure will be used to examine the role of the high school principals as perceived by urban high school teachers, principals and superintendents. Attention will focus on: 1) the way urban high school principals view their positions, 2) the actual view of each of the other participating groups, 3) the ideal view of each of the other participating groups in the school regarding their perceptions of the role of the principal and 4) the difference or discrepancy between their ideal and actual perceptions of the role of the principal.

After reviewing the research of Blumberg (8), Bridges (13), Edmonds (29), Calvin (35), Rutter et al. (94), and McIntyre and Grant (66), one may reasonably suspect that perceptions regarding the principal's performance on the part of teachers, principals and superintendents in some manner measures the effects of the principal's performance on student

achievement. Therefore, it is postulated that when there is congruence between the actual performance, and the ideal or priority performance of the principal as perceived by teachers, principals and superintendents that principals will receive higher evaluative ratings and to be found in improving schools. Operationally, if teachers, principals and superintendents identify principals of improving and maintaining/declining urban high schools and measures of achievement are obtained from their students, there will be no significant difference between measures of ideal and actual principal performance in improving urban high schools.

Conversely, there will be a significant difference between the measures of actual and ideal principal performance in maintaining/declining urban high schools. To direct statistical analysis of the operational hypothesis, nine hypotheses and 72 subhypotheses were developed and are here stated in the null form:

$HO:_1$ There will be no significant differences in the priorities (as measured by ratings on the Eight Areas of Key Responsibility) among principals of urban high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{1a}$ There will be no significant differences in the priority mean scores on goal setting (key area 1) among principals of high schools classified as "improving achievement" and maintaining/declining achievement".

$HO:_{1b}$ There will be no significant differences in the priority mean scores on staffing (key area 2) among principals of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{1c}$ There will be no significant differences in the priority mean scores on allocating time and space (key area 3) among principals of high schools classified as "improving

achievement" and "maintaining/declining achievement".

$HO:_{1d}$ There will be no significant differences in the priority mean scores on providing materials, equipment and facilities (key area 4) among principals of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{1e}$ There will be no significant differences in the priority mean scores on coordinating noninstructional services (key area 5) among principals of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{1f}$ There will be no significant differences in the priority mean scores on developing school-community services (key area 6) among principals of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{1g}$ There will be no significant differences in the priority mean scores on developing inservice training (key area 7) among principals of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{1h}$ There will be no significant differences in the priority mean scores on evaluating processes and products of instruction (key area 8) among principals of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_2$ There will be no significant differences in the actual performances as measured by ratings on the Eight Areas of Key Responsibility) among principals of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{2a}$ There will be no significant differences in the actual performance mean scores (key area 1) among principals of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{2b}$ There will be no significant differences in the actual performance mean scores (key area 2) among principals of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{2c}$ There will be no significant differences in the actual performance mean scores (key area 3) among principals of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{2d}$ There will be no significant differences in the actual performance mean scores (key area 4) among principals of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{2e}$ There will be no significant differences in the actual performance mean scores (key area 5) among principals of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{2f}$ There will be no significant differences in the actual performance mean scores (key area 6) among principals of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{2g}$ There will be no significant differences in the actual performance mean scores (key area 7) among principals of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{2h}$ There will be no significant differences in the actual performance mean scores (key area 8) among principals of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{3}$ There will be no significant differences in the discrepancies (as measured by ratings on the Eight Areas of Key Responsibility) among principals of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{3a}$ There will be no significant differences in the discrepancy mean scores (key area 1) among principals of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{3b}$ There will be no significant differences in the discrepancy mean scores (key area 2) among principals of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{3c}$ There will be no significant differences in the discrepancy mean scores (key area 3) among principals of high schools classified as "improving achievement" and "maintaining/ declining achievement".

$HO:_{3d}$ There will be no significant differences in the discrepancy mean scores (key area 4) among principals of high schools classified as "improving achievement" and "maintaining/ declining achievement".

$HO:_{3e}$ There will be no significant differences in the discrepancy mean scores (key area 5) among principals of high schools classified as "improving achievement" and "maintaining/ declining achievement".

$HO:_{3f}$ There will be no significant differences in the discrepancy mean scores (key area 6) among principals of high schools classified as "improving achievement" and "maintaining/ declining achievement".

$HO:_{3g}$ There will be no significant differences in the discrepancy mean scores (key area 7) among principals of high schools classified as "improving achievement" and "maintaining/ declining achievement".

$HO:_{3h}$ There will be no significant differences in the discrepancy mean scores (key area 8) among principals of high schools classified as "improving achievement" and "maintaining/ declining achievement".

$HO:_{4}$ There will be no significant differences in the priorities (as measured by ratings on the Eight Areas of Key Responsibility) among teachers of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{4a}$ There will be no significant difference in the priority mean ratings (key area 1) among teachers of high schools classified as "improving achievement" and "maintaining/ declining achievement".

$HO:_{4b}$ There will be no significant difference in the priority mean ratings (key area 2) among teachers of high schools classified as "improving achievement" and "maintaining/ declining achievement".

$HO:_{4c}$ There will be no significant difference in the priority mean ratings (key area 3) among teachers of high schools classified as "improving achievement" and "maintaining/ declining achievement".

$HO:_{4d}$ There will be no significant difference in the priority mean ratings (key area 4) among teachers of high schools classified as "improving achievement" and "maintaining/ declining achievement".

$HO:_{4e}$ There will be no significant difference in the priority mean ratings (key area 5) among teachers of high schools classified as "improving achievement" and "maintaining/ declining achievement".

$HO:_{4f}$ There will be no significant difference in the priority mean ratings (key area 6) among teachers of high schools classified as "improving achievement" and "maintaining/ declining achievement".

$HO:_{4g}$ There will be no significant difference in the priority mean ratings (key area 7) among teachers of high schools classified as "improving achievement" and "maintaining/ declining achievement".

$HO:_{4h}$ There will be no significant difference in the priority mean ratings (key area 8) among teachers of high schools classified as "improving achievement" and "maintaining/ declining achievement".

$HO:_{5}$ There will be no significant differences in the actual performances (as measured by ratings on the Eight Areas of Key Responsibility) among teachers of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{5a}$ There will be no significant difference in the actual performance mean ratings (key area 1) among teachers of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{5b}$ There will be no significant difference in the actual performance mean ratings (key area 2) among teachers of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{5c}$ There will be no significant difference in the actual

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$HO:_{5d}$ There will be no significant difference in the actual performance mean ratings (key area 4) among teachers of high schools classified as "improving achievement" and "maintaining/declining achievement".

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$HO:_{5f}$ There will be no significant difference in the actual performance mean ratings (key area 6) among teachers of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{5g}$ There will be no significant difference in the actual performance mean ratings (key area 7) among teachers of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{5h}$ There will be no significant difference in the actual performance mean ratings (key area 8) among teachers of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{6}$ There will be no significant differences in the discrepancies (as measured by ratings on the Eight Areas of Key Responsibility) among teachers of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{6a}$ There will be no significant difference in the discrepancy mean ratings (key area 1) among teachers of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{6b}$ There will be no significant difference in the discrepancy mean ratings (key area 2) among teachers of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{6c}$ There will be no significant difference in the discrepancy mean ratings (key area 3) among teachers of high schools

classified as "improving achievement" and "maintaining/ declining achievement".

$HO:_{6d}$ There will be no significant difference in the discrepancy mean ratings (key area 4) among teachers of high schools classified as "improving achievement" and "maintaining/ declining achievement".

$HO:_{6e}$ There will be no significant difference in the discrepancy mean ratings (key area 5) among teachers of high schools classified as "improving achievement" and "maintaining/ declining achievement".

$HO:_{6f}$ There will be no significant difference in the discrepancy mean ratings (key area 6) among teachers of high schools classified as "improving achievement" and "maintaining/ declining achievement".

$HO:_{6g}$ There will be no significant difference in the discrepancy mean ratings (key area 7) among teachers of high schools classified as "improving achievement" and "maintaining/ declining achievement".

$HO:_{6h}$ There will be no significant difference in the discrepancy mean ratings (key area 8) among teachers of high schools classified as "improving achievement" and "maintaining/ declining achievement".

$HO:_{7}$ There will be no significant differences in the priorities (as measured by ratings on the Eight Areas of Key Responsibility) among superintendents of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{7a}$ There will be no significant difference in the priority mean ratings (key area 1) among superintendents of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{7b}$ There will be no significant difference in the priority mean ratings (key area 2) among superintendents of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{7c}$ There will be no significant difference in the priority mean ratings (key area 3) among superintendents of high

schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{7d}$ There will be no significant difference in the priority mean ratings (key area 4) among superintendents of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{7e}$ There will be no significant difference in the priority mean ratings (key area 5) among superintendents of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{7f}$ There will be no significant difference in the priority mean ratings (key area 6) among superintendents of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{7g}$ There will be no significant difference in the priority mean ratings (key area 7) among superintendents of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{7h}$ There will be no significant difference in the priority mean ratings (key area 8) among superintendents of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{8}$ There will be no significant differences in the actual performances (as measured by ratings on the Eight Areas of Key Responsibility) among superintendents of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{8a}$ There will be no significant difference in the actual performance mean ratings (key area 1) among superintendents of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{8b}$ There will be no significant difference in the actual performance mean ratings (key area 2) among superintendents of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{8c}$ There will be no significant difference in the actual performance mean ratings (key area 3) among superintendents of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{8d}$ There will be no significant difference in the actual performance mean ratings (key area 4) among superintendents of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{8e}$ There will be no significant difference in the actual performance mean ratings (key area 5) among superintendents of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{8f}$ There will be no significant difference in the actual performance mean ratings (key area 6) among superintendents of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{8g}$ There will be no significant difference in the actual performance mean ratings (key area 7) among superintendents of high schools classfied as "improving achievement" and "maintaining/declining achievement".

$HO:_{8h}$ There will be no significant difference in the actual performance mean ratings (key area 8) among superintendents of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{9}$ There will be no significant differences in the discrepancies (as measured by ratings on the Eight Areas of Key Responsibility) among superintendents of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{9a}$ There will be no significant difference in the discrepancy mean ratings (key area 1) among superintendents of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{9b}$ There will be no significant difference in the discrepancy mean ratings (key area 2) among superintendents of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{9c}$ There will be no significant difference in the discrepancy mean ratings (key area 3) among superintendents of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{9d}$ There will be no significant difference in the discrepancy mean ratings (key area 4) among superintendents of high

schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{9e}$ There will be no significant difference in the discrepancy mean ratings (key area 5) among superintendents of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{9f}$ There will be no significant difference in the discrepancy mean ratings (key area 6) among superintendents of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{9g}$ There will be no significant difference in the discrepancy mean ratings (key area 7) among superintendents of high schools classified as "improving achievement" and "maintaining/declining achievement".

$HO:_{9h}$ There will be no significant difference in the discrepancy mean ratings (key area 8) among superintendents of high schools classified as "improving achievement" and "maintaining/declining achievement".

Review of Literature

The rationale used for reviewing the literature was that both administrator and teacher behavior are crucial to the improvement of student achievement. It is a knowledge of "what" the principal does as the instructional leader and "how" he[1] is perceived by his peers, subordinates, and superordinates that determines his effectiveness. In this case, the concept of leadership constitutes a set of functions, or behaviors issued out by individuals to assure that tasks, group climate, and individual satisfaction relate to the organizational objectives. Leader effectiveness, therefore, is the relative level of goal achievement (56).

Edmonds (29) suggested five assumptions about effective principals.

[1]The common impersonal pronoun "he" will be used throughout this paper although the writer recognizes and encourages the recurrent trend towards the hiring of women principals.

They are:

1. Exhibits "strong" administrative leadership.
2. Develops a school climate conducive to learning.
3. Emphasizes school-wide basic skills instruction.
4. Has optimistic teacher expectations of pupils' ability.
5. Conducts an on-going assessment of pupil progress. (1:3)

Accepting Edmonds (29) five beliefs, the determinants of school effectiveness would be more meaningful if based on the relationships between principal behavior and student outcomes, or goal achievement. To this end, the present review of literature is intended to provide insight into and to establish a theoretical framework for research in the area of urban administrator performance as related to student outcomes. To accomplish this objective, a review and summarization of current literature was conducted and presented here in four general categories: 1) theories of leadership effectiveness, (2) role theory, (3) role of the urban high school principal, and 4) search for effective schools.

Theories of leadership effectiveness

The theory, research, and practice of leadership has intrigued men for centuries. The search for characteristics that distinguish leaders from followers has been remarkably unsuccessful. During the late 1930s and early 1940s, researchers tried to define effective leadership by isolating personality traits. Consequently, subsequent reviews of literature cast doubt on the existence of a "set of traits" that identify successful leaders. Hoy and Miskel (56) cite 125 research studies of

leadership that generated 750 findings about the personality traits of leaders. Many traits tentatively isolated as crucial in one study were contradicted in others. In some groups, effective leaders were assertive and aggressive, while in others, mild-mannered and restrained; in some, quick and decisive, while in others, reflective and diplomatic. Stogdill (104) suggested that the trait approach to the study of leadership yielded negligible results.

In recent times, Cartwright and Zander (18) have conceptualized leadership as multidimensional, that is, supporting at least two distinct types. They conclude that most group objectives can be subsumed under one of two headings: 1) the achievement of some specific group goal and 2) the maintenance or strengthening of the group itself. Any given behavior in a group may have significance, both for goal achievement and for maintenance. A member who leads a group to work cooperatively on a problem may inadvertently help it to develop cohesiveness. In another group, however, an aggressive member may direct a group in such a way that frictions develop among the members and, even though the goal is achieved, the continued existence of the group is endangered (18). Although it is evident that goal achievement and group maintenance functions may be achieved by any member, there are types of organizations in which certain types of leaders emerge.

Cartwright and Zander (18) report that in laboratory studies of problem-solving leaderless groups, two factors become apparent. There almost always appears a differentiation between a person who stresses task accomplishment and a person who satisfies the social and emotional

needs of members. These two factors have been labeled "initiating structure" and "consideration". Items with a high positive loading on "initiating structure" were associated with leader behavior that tends to define the role which he expects each member to assume and that seeks to establish well-defined patterns of organization, channels of communication, and ways of getting the job. Items with high positive loadings on "consideration" were associated with behavior indicative of friendship, mutual trust, respect, and a certain warmth between the leader and his group. A comprehensive study of the literature tends to support this dual leadership model (38, 48, 60, 33).

Notable in the effort to identify leadership effectiveness in schools has been the work of Fred Fiedler (33) and the development of his Contingency Theory. Since the theory has been tested in the school setting, its empirical support is useful to describe and evaluate. The basic postulates of his contingency model are:

1. That leadership style is determined by the needs the individual seeks to satisfy in the leadership situation.

2. That the effectiveness of the group's performance is contingent upon the appropriate matching of leadership style and the degree of favorableness of the leadership situation for the leader; that is, the degree to which the situation provides the leader with influence over his workers. (33:32-34)

Fiedler (33) identifies three major factors that are used to classify the favorableness of the group situation: 1) position power of the leader, 2) task structure, and 3) leader-member relations. Task structure and position power typically are determined by the organization. Leader-member relations are, in part, determined by the leader's

personality and behavior. This factor refers to the extent to which the leader is accepted and respected by his subordinates, that is, the extent to which he has informal authority. Studies indicate that the leader-member relation is the most important factor in determining the leader's influence over the group members, followed by task structure and position power (33).

In an effort to determine which style of leadership is most effective in which type of situation, Fiedler categorized the type of situation (one of eight octants), determined the style of the leader, and determined which groups performed their tasks successfully or unsuccessfully. Then for each group, effectiveness of the group performance was correlated with leadership style. These correlations were plotted separately for each of the eight situations and presented as octants (Figure 1.1).

Octant	Degree of favorableness	Leader-member relations	Task structure	Position power of the leader
I	Favorable	Good	Structured	High
II		Good	Structured	Low
III		Good	Unstructured	High
IV	Moderate	Good	Unstructured	Low
V		Poor	Structured	High
VI		Poor	Structured	Low
VII		Poor	Unstructured	High
VIII	Unfavorable	Poor	Unstructured	Low

Figure 1.1. Classification of situation according to favorableness

If each of the three factors is dichotomized as good-bad leader-member relations, structured-unstructured tasks, and high-low position power, these eight combinations or octants combine to form the range of situations from highly favorable to highly unfavorable. For example, Octant I is the most favorable situation with good relations, structured task, and high position power (56). This suggests that the appropriateness of the leadership style for maximizing group performance is contingent on the favorableness of the situation. The data also indicate that task-oriented leaders are more effective in situations that are highly favorable or in situations that are relatively unfavorable. Relationship-oriented leaders tend to be more effective in situations that are moderate in terms of favorableness.

Reddin (91) uses the two basic dimensions of leadership behavior already reviewed: concern for task and relations, and adds a third, an effectiveness dimension. Four basic styles are generated by cross-partitioning the two dimensions of task and relations. When the administrator emphasizes both concern for task and relations, his style is called integrated; when emphasis is placed on neither, his style is separated; when concern is basically task and not relations, his style is dedicated; and finally, when concern is primarily relations and not task, his style is related. Reddin (91) adds an effectiveness dimension to the grid, and assumes that any of the four styles can be effective under the right circumstances. Eight administrative styles are now possible, emanating from the appropriate and inappropriate use of each of the four basic styles:

1. Effective, integrated style = Executive
2. Ineffective, integrated style = Compromiser
3. Effective, separated style = Bureaucrat
4. Ineffective, separated style = Deserter
5. Effective, dedicated style = Benevolent Autocrat
6. Ineffective, dedicated style = Autocrat
7. Effective, related style = Developer
8. Ineffective, related style = Missionary

An intense investigation of the leadership theory literature suggests that some ambiguity exists in terms of defining the "appropriate" situation for each leadership style identified. Further, there exists some disagreement among multidimensional leadership researchers about what constitutes effective educational outcomes; consequently, there has been a problem defining and operationalizing effectiveness. Most of the research like Reddin's Tri-Dimensional Grid is based on the premise that effectiveness is a function of the appropriate matching of basic style to the situation (91).

Role theory

Since role perception is a term that is used often in the present study, in addition to other role theory terms, a brief definition of each will follow:

1. Role--The various positions, offices, or statuses within the institution. In a school building these would include principal, teacher, student, and custodial positions. (56:41)

2. Role expectations--This refers to the expectation that one has of the role behavior of another. (18:219)

3. Role perception--This is used to describe the perception that one has of the role expectation that another holds for him. (64:133)

4. Role conflict--This is used to describe some degree of disagreement among those persons in institutional roles. (64:133)

5. Role congruence--This is used to describe some degree of agreement among those in institutional roles. (17:1)

6. Role personality conflict--This is used to describe the disagreement between the expectations for the role of the principal and his personality need-disposition. (64:133)

The ways of acting or performing of roles that individuals come to accept as proper for themselves are, in part, a result of the internalization of what they think others expect of them (108). Sociologically, the concept of role consists of two dimensions. One dimension consists of what the individual regards as proper behavior, and the other dimension consists of the perceptions he has of the views of how relevant others are in regarding proper conduct (33). These conclusions have derived from role theory and have been used in many types of organizational settings.

Getzels and Guba (38), for example, describe the organization as a social system which embodies the institution, role, expectation, individual, personality, and need disposition dimensions. According to Getzels and Guba, the most important subunit of the institution is the role. In order to achieve the goals of the institution, individuals are assigned specific roles (i.e., teachers, principals, supervisors, superintendent, etc.). Each individual is expected to fulfill the role assigned to him as defined. If the individual does not agree with the role assigned to him by the institution, the need disposition is not likely to be satisfied and role conflict results.

Blumberg and Greenfield (9) indicate that the nature of this role conflict is seen in the relationship between teachers and principals. Tied to organizational position and advancement is the conflict

between the teacher as a professional and the supervisor as a bureaucrat. This was expressed by a graduate student in the following terms:

> The problem is that we teachers see ourselves as professional people devoting our time to improving what we do in the classroom and the school. We see the supervisor as having, in a sense, forsaken professionalism for a role in the bureaucracy with the major function of protecting and maintaining organization norms and values. (9:35)

Siegel and Siegel (100) also found in their studies that one's attitude tends to change as he advances through an organization. It was observed that the new role holder assumes the attitudes of the group to which he is most closely attached. Thus, when a teacher becomes a supervisor, he starts to think and act on a different set of assumptions. One of the deleterious effects of such changes is that communication problems arise as the teacher perceives the supervisor to be mostly concerned with maintaining bureaucratic values while the teacher is concerned with professional problems.

In a 1974 doctoral dissertation, McIntyre (65) investigated eight role expectations of the high school principal as perceived by 10 superintendents, 20 high school principals, and 168 teachers. Major differences were noted in all eight key areas among the respondent groups, the bulk of the differences being between teachers and superintendents. This finding supports the conclusion that the further apart two segments are in the organization, the greater the differences or discrepancies in opinion regarding the role functions of the individuals (35).

On the other hand, there are studies that have revealed that agreement or congruence between two different role segments in an organization is possible. In one such study of 15 principals and 284 teachers

in eight elementary and seven high schools, Campbell (17) found that when the principals' role expectations were in agreement with the teachers' wants and needs, the following results were observed:

1. The teachers experienced a higher level of job satisfaction.
2. The principals rated the teachers as more effective.
3. The teachers expressed a higher level of confidence in the principals' leadership.

While as indicated there are differing opinions about the possibility for agreement between two different role segments in an organization, the current literature does reveal several major efforts to clarify the differences.

Role of the urban high school principal

While studying the work activity of high school principals, Willis (116) made this comment:

> Pressures such as a widening autonomy for school principals and more assertive "community" involvement in schools have directed increasing attention to the principalship. However, despite this focal position, it is the issue of "role" that has been highlighted. (116:27)

The "Role of the High School Principal" has been the theme of many seminars and conferences, papers and addresses (117). Also, the role has frequently been defined; recipes for effectiveness and success have been produced and appropriate behaviors, styles, and even personality features have been stipulated. However, role consensus about the principalship is either fragile or, more likely, nonexistent. Hoyle (57) and Peterson (87) conclude that there has been considerable concentration on normative

approaches with virtually no basis on what principals actually do in their work. There is a need then, to identify the nature of the principal's work, especially with the number of university courses and graduate programs in educational administration directed heavily at the principalship.

There is even more of a need for these graduate programs in educational administration to understand the nature of the urban high school principal's work. Hemphill et al. (51) report that direct assessments of administrative preparation programs by principals at all levels point to the lack of fit, between academic training and role demands of the urban principalship. According to the National Association of Secondary School Principals Report of 1965 (cited in 53), 90 percent of high school principals in urban school systems have at least a master's degree, and the trend is toward higher levels of formal education. Their graduate work is most likely to be in the field of educational administration and supervision. More than three-fourths of all urban principals choose this area as their major field of interest, while less than 5 percent major in a more traditional academic discipline.

In a similar study conducted in 1978 by the National Association of Secondary School Principals (cited in 53), 9 out of 10 urban principals were found to hold master's degrees, with some additional graduate work. The major field of study for these principals is educational supervision and administration.

With such a high percentage of urban administrators participating in university graduate programs, there is a greater need for research to

provide useful data for programmatic use in their administrative training.

Although sparse, there have been research efforts to define the role of the urban high school principal. Notable in this effort is a study by Maglaras (70) where a check list was developed for the Evaluation of Secondary Principals (CLESP). The items in the check list were based on the competencies listed as important to the secondary principalship by writers and researchers in educational administration and were jury validated by the several state chairmen of the Secondary Commission of the North Central Association of Colleges and Secondary Schools (65:57). A significant difference was found at the .01 level of confidence in the check list for the Evaluation of Secondary Principals' total scores and the categories of supervision, curriculum, and conceptual skills. Maglaras (70) concludes that these results indicate that the leadership role of the urban high school principal can be a major influence in the development of an effective instructional program (70:80).

Stated another way, Goodlad (42) indicates that when the school is viewed as an operating unit having a great deal of autonomy and as being ". . . the largest organic unit for educational change", the leadership role of the principal takes on paramount importance. Similarly, Trump and Georgiades (107) as head of the Model School Project, specified instructional leadership as the principal's chief function.

In harmony with this emphasis on instructional leadership, urban parents, and state and federal officials are currently pressing to make

the educational institutions within their communities more accountable and responsive for and to the academic needs of the students (106). The concern by parents and government officials for urban principals to be more effective in their roles has been sparked by the fact that principals and their staffs occasionally allow themselves to get caught in a web of negative thinking (110). According to Washington, this negativism points to a major leadership dysfunction--the communication of attitudes and feelings that translate into, "I don't expect much from you or the children" or "We are fighting a losing battle". Studies by Keeler and Andrews (61) suggest that the performance of teachers who work in such organizational climates, matches the expectations of the principals.

Corroborating the notion that principal expectations can affect teacher performance and ultimately student achievement, Miller (76) asserts that the key to improving teacher performance is to encourage principals to develop leadership behaviors that are high in consideration (socioemotional support, open communication, and genuineness). Washington (111) identifies these kinds of principals as positive, Pygmalion leaders. They generally manifest the following characteristics:

1. Have a strong and positive sense of self.
2. Have confidence in their ability to facilitate the development of staff members.
3. Have the facility for helping staff members set goals and objectives that are realistic and obtainable.
4. View the achievement of staff members as the ultimate

success and reward. (111:187)

Sergiovanni and Carter (99) agree and contend that the very nature of the urban principal's work demands that he possess human skills. They state:

> Human skills refers to the school executive's ability to work effectively and efficiently with other people on a one-to-one basis and in group settings. This skill requires considerable self-understanding and acceptance as well as appreciation, empathy, and consideration for others. Its knowledge base includes an understanding of and facility for adult motivation, attitudinal development, group dynamics, human needs, morale and the development of human resources.

In addition to developing these human skills, the urban high school principal must be able to respond to pressures, make decisions, react to developing issues, and initiate changes in the midst of many constraints from within and outside of the school organization (109, 38, 49, 39). Moser makes the following comment about the principal's complex task (81):

> Teachers want their principal to . . . cater to the individual needs of staff members, and to advocate the staff's point of view with top management. The superintendents of these same principals expect them to be forceful in their relationships with subordinates, to initiate action, and to show greater concern for the institution than for the individual.

Similarly, Getzels, Lipham, and Campbell (39) after a review of many role conflict studies, suggest that principals are highly vulnerable to the conflict that exists when individuals or groups hold incompatible expectations for a person's performance in the role. Further, simultaneous demands for mutually exclusive or contradictory role behavior are major sources of organizational stress for urban principals, especially secondary school principals.

In closing this section on the role of urban principals, this writer suggests that urban high school principals would quite likely identify with these words from Roland Barth:

> Our period demands a type of man who can restore the lost equilibrium between inner and outer reality. This equilibrium--never static, but like reality itself, involved in continuous change--is like that of a tight rope dancer who by small adjustments, keeps a continuous balance between his being and empty space. We need a type of man who can control his own existence by the process of balancing forces often regarded as irreconcilable; man in equipoise. (5:13)

Search for effective schools

Seminal to the efforts to identify effective urban high school principals are the investigations of Weber (112), Madden et al. (69), Brookover et al. (16), Rutter et al. (94), Edmonds (28, 29), Edmonds and Frederiksen (30), and Coleman et al. (22), and are here summarized.

Each of the studies in this summary utilizes the case study approach since data collected by onsite inquiry, by interviews with key personnel, and by observation provide an understanding of not only how an organization functions but why it behaves the way it does. Assessing the validity of case studies is risky for there are no formal criteria to guide judgment; however, Sweeney (105) developed four criteria to guide research selection for effective school study to counteract this liability. They are as follows:

1. Evidence that the study is internally valid, i.e., that the researcher(s) use appropriate measuring instruments and statistical analyses.
2. Evidence of control for pupil characteristics.
3. Research is conducted in schools categorized as effective

or exemplary based on operational definitions of achievement.

4. Significant positive relationships between school achievement and instructional leadership behavior is reported.

Weber, 1971 Seeking to contribute to the research on school determinants of achievement, Weber (112) conducted studies in four inner-city schools in New York, Los Angeles, and Kansas City. The results of the study proved to be quite a departure from existing thought on determinants of student achievement. The Coleman report of 1966 (21) influenced many researchers at that time to conclude that schools didn't make a difference; a student's achievement was exclusively a function of family background. Contrary to those conclusions, Weber's (112) study pointed toward the school as the major determinant of success in student reading achievement.

The four schools chosen for examination were those which exhibited a significant number of poor students scoring below national reading norms. To further substantiate student competency in reading, a test was devised to determine reading ability. Interviews with staff and observations of classes during reading instruction revealed the following characteristics of schools categorized as successful (112):

1. The principals and teachers strongly emphasized reading and frequently evaluated student progress.
2. The schools' atmospheres were pleasant, orderly, and quiet.
3. Administrative behavior, policies, and practices appeared to have a significant impact on school success.
4. The administrators set the tone for their schools and

> assumed responsibility for instruction and allocation of resources to reach school goals.

Weber further identified additional reading personnel, phonics, and individualization as important to the instructional success of the four schools. There does tend to be some disagreement among researchers about the relevance of these three factors regarding the success of schools. Edmonds (29), i.e., states:

> I'll not endorse or pursue these Weber findings that additional reading personnel, phonics, and individualization are important to the instructional success of schools . . . because subsequent research does not sustain their relevance.

Despite these few differences, Weber's findings tend to be consistent with existing research on effective school studies.

Madden et al., 1976 During the mid-1970s, Madden, Lawson, and Sweet (69) directed research which corroborated the findings of both Weber (112) and the State of New York Performance Review (103) but was more extensive and rigorous. In an effort to identify the institutional characteristics that seemed most responsible for the achievement differences, 21 pairs of California elementary schools were studied. The schools were matched on the basis of pupil performance on standardized achievement measures. The differences described on the basis of 21 high-achieving and 21 low-achieving schools, revealed the following in the high-achieving schools (69):

1. Teachers reported receiving significantly more support from their principals.
2. The principals had more impact on educational decision-making.

3. There was more evidence of pupil progress monitoring.

4. There was more emphasis on achievement.

Brookover et al., 1979 In this discussion of effective schools, Brookover et al. (16) draw heavily on previous work done by himself and Schneider (15) and Lezotte (14), where marked differences were found in leadership in improving and in maintaining/declining schools. Through the use of questionnaires and interviews designed to identify differences between improving and maintaining/declining schools in Michigan, Brookover and Lezotte found that leaders in the improving schools were more assertive, more effective disciplinarians, and more inclined to assume responsibility. Emphasis on instruction and student achievement was more pervasive in the improving schools.

On the basis of this early research, Brookover et al. (16) designed a study to examine the hypothesis that differences in school social systems explain differences in student outcomes among schools. Subjects from three groups of Michigan elementary schools were studied: 1) a representative state sample of 68, 2) a majority black school sample of 30, and 3) a majority white school sample of 61. Analyses of data from these schools suggested that a major portion of the variance in achievement between schools was explained by three dimensions of the school social system: 1) school inputs, 2) school social structure, and 3) school climate. The results of the study also indicated that low socioeconomic status (SES) schools, both majority black and white, had climates conducive to higher student achievement.

These data laid the groundwork for further case studies in four

low socioeconomic (SES) schools. Two were majority black schools differing in effectiveness as determined by achievement scores, and two were majority white schools exhibiting the same differences in student achievement. Several significant conclusions were drawn concerning academic growth and specific administrative behaviors.

First, there was a positive association between academic outcome as measured by achievement scores and frequent visits to the classrooms by the principal. Secondly, there was a tendency for students to make better progress when the principal's concern for achievement was known to both the teachers and students. A third finding was that student academic attainment was more closely associated with principals who had high expectations for both teachers and students. Finally, the results of the study suggest that principals who encourage teacher participation in seminars, workshops, and inservice programs designed to increase teacher classroom effectiveness realize greater academic results by students.

Rutter et al., 1979 Rutter et al. (94) studied fifteen hundred junior high school students in twelve innercity schools of London. Using surveys, interviews, inclass observations, and test-retest materials, Rutter et al. successfully captured the process of schooling. This involved gathering data on the kinds of environments provided for teaching and learning as well as variables such as academic emphasis, teaching skills, and student participation.

Investigations of more than seventy variables suggested that influence of the combined effect of the process variables was more powerful

than any individual variable. There also was an interaction between this combined effect and school leadership. To illustrate:

1. School outcomes tended to be better when the curriculum and approaches to discipline were agreed upon and supported by the staff acting together.

2. Examination successes were more frequent and delinquency less common in schools where discipline was based on expectations set by the school rather than left to individual teachers to work out for themselves.

3. Decisions tended to be made at a higher level than the staff room.

4. Students had better academic success in schools where general attitudes and specific actions by staff emphasized academic expectations.

5. The school atmosphere was greatly influenced by the degree to which the school functioned as a coherent whole, with agreed upon ways of doing things. (80:16)

The researchers concluded that the underlying influence in the effective schools was something called "ethos". "Ethos" was defined as a positive attitude toward learning. The question is, "How is ethos developed?" Mortimore's (cited in 3) answer is:

> . . . strong leadership is important--not only leadership but high expectations for students, and . . . for teachers as well. Consistency between adults is terribly important. And finally, the amount of feedback and the effectiveness of that feedback given to those students. (3:6)

Mortimore (cited in 3), who is the Director of Research and Statistics for the local board which oversees elementary and secondary schools in London, a city with all the problems of urban areas in the United States, summarized the findings of the study by saying:

> The findings of 15,000 Hours are not important, because they show that school effectiveness is not determined primarily by available resources or by physical or administrative

> differences such as school size, but by human factors--the equality of teaching and the quality of leadership in the schools. (3:6)

Some critics do not put much stock in the qualitative data resulting from studies like Rutter's Fifteen Thousand Hours. According to Schatzman and Strauss (97), it is difficult to code and use such data in any systematic way. Similarly, Cooley (24) and Porter and McDaniel (89) indicate that there are serious practical difficulties in measuring process variables, particularly if one engages in direct observational procedures. While these views tend to confound the effort to establish a clearly-defined methodology for examining effective schools, they are not necessarily inconsistent with the overall thrust of effectiveness research. For example, there was congruence of high expectations of students by the "school" and more frequent examination successes on the part of the students, a finding that has been substantiated by other quantitative effectiveness studies by Brookover and Lezotte (14), Medley (75), and Rosenshine (93). Therefore, even though this research may not satisfy some quantitative researchers, it does not, in and of itself, nullify other effectiveness research.

Edmonds, 1979 Edmonds (29) has been involved in an ongoing effort to identify and analyze urban schools that are instructionally effective for poor and/or minority students. His initial efforts were as project director of Harvard University's "Search for Effective Schools" (63). These studies involved 20 elementary schools in Detroit's Model Cities Neighborhood and a reanalysis of the 1966 Equal Opportunity Survey (EEOS) data (36), and an analysis of differences in six pairs of

elementary schools in Lansing, Michigan.

Using normative achievement scores in reading and math, effective schools were defined as those whose students scored at or above the city average grade equivalent. Edmonds (29) and Fredericksen (36) then combined their efforts to investigate the relationship between family background and building effectiveness. They found that schools that were instructionally effective for poor and/or black children were indistinguishable from instructionally less effective schools on measures of pupil sociological background (mean father's and mother's education; category of occupation; percentage of white students; mean family size; and percentage of intact families). These findings were in striking contrast to that of previous effectiveness research; in fact, it was a major change from the findings of the Coleman Report of 1966 (21), which held that the family was the major determinant of student success or failure in school (98, 47).

In a report on the School Improvement Project, which was a continuation of Edmond's (29) work, Adler and McCarthy (1) cite five factors associated with school effectiveness:

1. Strong administrative leadership.
2. School climate conducive to learning.
3. Optimistic teacher expectations of pupils' ability.
4. School-wide emphasis on basic skills instruction.
5. Ongoing assessment of pupil progress.

Using anecdotal information, personal observations, questionnaires, and interviews, Edmonds (28, 29) and Adler and McCarthy (1) obtained the

following results in connection with the five factors:

1. Administrative style - Ninety to one hundred percent of improving school teachers reported effective with-in grade and school-wide instruction coordination, regular response to teachers' difficulties, useful meetings, formal provisions for staff interaction on curriculum matters, and adequate inservice training in their schools. On the other hand, 50 to 82 percent of the teachers in the maintaining/declining school teachers indicated a lack of instructional supervision by administrators and general dissatisfaction with instructional goals in the schools. (1:11)

2. Instructional Emphasis on Basic Skills - Ninety to one hundred percent of teachers in improving schools reportedly emphasized small group as well as individualized instruction in basic skills, prepared written daily lesson plans, and encouraged student participation in basic skills instruction. (1:12)

3. School Climate - The vast majority of teachers in improving schools reported effective communication between teachers and principals, a well defined discipline policy, and school safety procedures. (1:12)

4. Teacher Expectations - Nearly all teachers in both improving and maintaining/declining schools expressed high levels of interest in students and their belief that all students can learn. (1:13)

5. Ongoing Assessment of Pupil Progress - Improving school teachers reportedly used achievement and diagnostic test results regularly in monitoring students' progress. Interviews with teachers from maintaining/declining schools revealed considerable reliance on informal evaluations and teacher made tests in assessing their students' achievement. (1:13)

Coleman et al., 1981 One of the most current and yet controversial school effectiveness studies has been the New Coleman Report (22), public versus private schooling. This New Coleman Report dramatically reverses the pessimistic conclusion of the first Coleman Report in 1966 (21), which revealed that "schools don't make a difference" and that "family background heavily determines educational achievement". In this

initial report of 1966, Coleman (21) administered standardized ability and achievement tests to 645,000 students, categorized into six racial and cultural groups. After controlling six student home-background variables in an attempt to assess the effects of school resources independently of students' social class, Coleman found that district per pupil instructional expenditure, teacher experience, number of books in the school library, presence of science laboratories, curricular differences, and a host of similar variables appeared to make little difference in students' measured levels of achievement.

What mattered most, according to the report, was not the material quality of the school, but students' home backgrounds prior to entering school. It is this finding that has received the most attention. Its implications were bluntly spelled out in the report:

> Schools bring little to bear on a child's achievement that is independent of his background and general social context . . . this very lack of independent effect means that the inequalities imposed on children by their home, neighborhood, and peer environment are carried along to become the inequalities with which they confront adult life at the end of school. For equality of educational opportunity must imply a strong effect on schools that is independent of the child's immediate social environment, and that strong independent effect is not present in American schools. (21:325)

Reactions to the 1966 Coleman Report were varied and critical. Criticisms ranged from relatively minor ones related to procedural and mechanical errors in handling data as reported by Bowles and Levine (12), Smith (102), Moynihan (82), and Mayeske et al. (74). Hanushek and Kain (50), Jencks (59), Dyer (27), Wiley (114), and Smith (102) pointed to problems pertaining to nonresponses, selective participation, and

possible defects in the report's method of analysis. For example, it has been reported that by carrying out separate analyses for regional and ethnic groups, Coleman reduced the heterogeneity of schooling and achievement, and this also reduced the likelihood of finding relationships (27). Furthermore, critics argued that the study's analytic model underestimated the role of the school resources, since school factors were introduced into the analysis only after student background factors had been controlled (102, 74, 114).

There has been similar disagreement among the critics about many aspects of the New Coleman Report (22), but no one has challenged the descriptive data comparing public and private schools in terms of homework, course enrollment, discipline, and absenteeism (90). The results associated with these terms are here summarized:

1. The most homework is done by students in a special group of "high performance" public and private high schools. Students who achieve the most are those who will work hardest.

2. When students of similar background are compared, taking advanced academic courses "brings substantially" greater achievement.

3. Absenteeism and class cutting contribute to lower student achievement levels (when family background is held constant).

4. The public schools had more difficulty than the private sector with such discipline problems as absenteeism, class cutting, fighting, and threatening teachers. (90:72)

Coleman concludes by saying (cited by Ravitch, 90).

> . . . that students do well because they have worked hard in demanding courses and have learned from their efforts, not because they come from good family backgrounds. (90:72)

There continues to be some disagreement about certain aspects of

the New Coleman Report (e.g., the way it measures the relative degree of racial integration in public and private schools); however, it contains important data about the relationship of various educational practices to student achievement. For this reason, the New Coleman Report (22) gives credence to the research hypotheses of the present study.

Summary and critique of literature

It has been shown through the Review of Literature that principals who exhibit "strong leadership" and exhibit high expectations for both teachers and students tend to be more effective in their roles. These two assumptions weave their way through the research.

Role theory is used to better understand and predict organizational behavior. Roles are defined in terms of role expectations--an understanding of which is requisite to a principal's making the choices necessary to carry out that role effectively. A large number of the studies cited in the Review of Literature make use of role theory and reveal that the principals' behavior is partially determined by the ratio of bureaucratic expectations to individual needs of their teachers (38). There appears to be differences between role expectations as perceived by superintendents and teachers of the building principals, which means that the further apart two segments are in the organization, the greater the differences of discrepancies of opinion regarding the role functions of individuals (35). As an example, teachers and superintendents tend to disagree about those role functions of both elementary and secondary principals. Teachers and principals seem in closer agreement about what

the role functions of the principal should be according to the results of McIntyre and Grant's (66) study.

Leadership effectiveness researchers have conceptualized leadership in several dimensions. Halpin and Winer (48), Getzels and Guba (38), and Stogdill (104), for example, conceptualized leadership as multidimensional, that is, supporting at least two types--systems oriented and person oriented. Fiedler adds a third dimension--situation (34). The systems-oriented leader is identified with initiating structure or leader behavior that prioritizes the organization's concerns as most important. The person-oriented leader is identified with consideration or leader behavior that indicates friendship, trust, warmth, and respect in the relationship with members of the work group. Fiedler's (34) research dealing with the third dimension of situation, indicates that situations vary according to their favorability, which is determined by three factors: 1) leader-member relations, 2) task structure, and 3) position power of the leader.

Finally, Reddin (91) found that some ambiguity exists in terms of defining the "appropriate" situation for each leadership style, and because there exists some disagreement among multidimensional leadership researchers about what constitutes effective educational outcomes, defining and operationalizing effectiveness has been a problem.

Although little school effectiveness research has been conducted in urban settings, researchers Edmonds (29), Rutter et al. (94), Weber (112), Madden et al. (69), Brookover and Schneider (15), and Coleman et al. (22) have done so. They have attempted to show that effective

schools and student achievement are caused by the effective leadership behaviors of the principal. However, Sweeney (105) warned that even with emphasis on effective schools based on empirically-validated effective leader behaviors of the principals, concern must be expressed for possible sources of bias in case studies conducted, especially in urban settings. Concerning this issue, Sweeney (105) discussed the importance of controlling for pupil characteristics and other sources that could bias the validity of effective urban school studies.

Additionally, Scott and Walberg (98) refute Edmonds' (29) and Coleman's (21) findings that urban schools alone are sufficient determinants of students' academic success. They found that student ability, motivation, amount of instruction, and quality of instruction were all strongly productive of academic learning. Likewise, Haertel and Talmadge (47) examined urban school and home-related factors and found that corrective instruction, the only one of 25 instructional practices, significantly related to student achievement. They did find, however, 13 significant correlations between home environment factors and achievement. Included in this list of 13 positive correlations are: 1) the child has a library card, 2) the parent has a library card, 3) the parent has been to the library this year, 4) the parent reads in front of the child more than once in a week, 5) the parent has an idea of how the child's work compares with that of his classmates, 6) the presence of magazines in the home, 7) the parent has been to open house at school during the past year, 8) the child does not have regular chores to do at home, 9) the child does not help around the house, 10) the parent has worked as a

volunteer during the past month, 11) the parent has not read to the child during the past month, 12) the parent has some plans in mind for the child's future, 13) the parent gets more information about school activities from the child or theschool secretary rather than from other children or notes from school.

Thus, we have reviewed six studies that strongly say, student academic outcomes are more noticeably related to school effects. Conversely, three studies refuted these findings by reporting that home-related factors are more productive of academic learning. In view of these conflicting reports, three logical questions arise. First, are there tangible and indispensable characteristics of effective urban high schools attributable to the leadership of the principal? Second, can high schools alone be sufficient determinants of student academic success? Third, are home-related factors more productive of student academic success?

While Edmonds (29) and others discovered relationships between leader behaviors and student outcomes, as well as several determinants of school effectiveness, there are also researchers who have powerful counter arguments that family background has a greater influence on student achievement. In addition to Scott and Walberg (98) and Haertel and Talmadge (47) who found that home-related environmental factors correlated more significantly with student academic success, more recent arguments by Rowan et al. (119) say that principals are effective because the schools are effective and that principals will only effective if they are leaders in the right situation.

Since there are still many conflicting views on the factors that positively relate to effective urban schools, a ripe field of study exists. This study has thus been designed to investigate the characteristics attributable to effective urban high schools and, more specifically, those factors related to the behaviors of the urban high school principal.

CHAPTER II. METHODS, PROCEDURES, AND FINDINGS

This investigation required the selection of six urban high schools with varying levels of student achievement. In order to identify such schools and in order to measure what was happening within the school environments, several methods were used. These included methods used in selection of the sample, description and administration of the data collection instruments, methods used in the collection of data, and treatment of the data. Five instruments were used to collect data: 1) the New York School Improvement Project Questionnaire, 2) the North Central Opinion Inventory for teachers, students, and parents, 3) the Administrator Competency Rating Scale (ACRS), 4) the Critical Work Analysis (CWA), and 5) the Building and Grounds Observation Schedule.

Selection of the Sample

The St. Louis Public School system contains 147 schools. Twenty-eight of these are high schools, 25 are middle schools, and 80 are elementary schools. Apart from the common grouping of schools into elementary up to grade eight and high schools, grades nine through twelve, there is considerable diversity among schools in the system. There are branch schools, magnet schools, hospital schools, vocational schools, Title I schools, community schools, open campus, and closed campus schools. The ethnic and economic context varies considerably in the system. Schools serve professional communities, middle-class communities, and low socioeconimic status communities. While some schools serve

homogeneous ethnic communities, others draw from a heterogeneous ethnic population. Some communities have a stable population, others are in transition.

The selection of schools was guided by four concerns--to select a sample pool of high schools that would: 1) reflect student populations with a diversity of range in achievement scores, 2) reflect student populations with homogeneous socioeconomic backgrounds, 3) have principals with enough time in their buildings to affect change, and 4) have similar enrollment numbers.

Since the present study was designed to investigate the relationship between principal behavior and student achievement, it was appropriate to classify the high schools based on varying levels of student achievement. In order to enrich the selection scheme for these schools, a regression technique designed by Alexander et al. (2) was used which tested the consistency of school effects on student achievement growth over two consecutive years. In addition to identifying a range of schools with varying achievement, this statistical method identifies those small percentage of schools using unusual approaches or that are exceptionally effective or ineffective in their results. Alexander et al.'s (2) regression technique was primarily used then, to classify the schools into two general categories--those that were improving and those that were maintaining/declining. The following regression equation was used to classify the schools (53):

$$Y = b_{yx}X + a_{yx}$$

Y = the predicted score; b = the regression coefficient; a = the regression constant; X = the pretest score.

$$b_{yx} = \frac{n\,XY - X\,Y}{n\,X - (X)}$$

$$a_{yx} = \frac{Y - b_{yx}\,X}{n} = \bar{Y} - b_{yx}\,\bar{X}$$

California Achievement Test score data were used in this preliminary investigation of variance in achievement. The regression equation determined each school's relative productivity in each year by estimating its residual average achievement scores. Residual average achievement scores were calculated for each school by subtracting the predicted mean average achievement score from the observed average achievement, where the predicted score is obtained from a regression of the end-of-the-year average student performance on the beginning-of-the-year average student performance inputs. Table 1 summarizes the results of the preliminary analyses of the consistency of school effects. The first column shows the correlation between the residual school achievement scores for students in grades nine through twelve in two consecutive school years. Of the four correlations calculated for the six different schools in reading and mathematics, two were large enough to pass conventional standards of statistical significance. Schools A, B, and C fell into this category in both reading and mathematics and were classified as improving schools. Columns two and three show the pre-, post-, and predicted average scale scores of the students in the six schools over two years. The columns reveal that schools A, B, and C consistently exceeded their statistical predictions over the two-year period for both

Table 1. Consistency of school effects over two school years (N = number of schools)

Schools	Correlation between 80-81 and 81-82 Residual Achievement Scores[a] (null hypothesis: r=0)	Scale scores 80-81 Pre-	Post-	Pred-	Scale scores 81-82 Pre-	Post-	Pred-	Rank
Improving schools (N=3)								
Reading	.996*							
Mathematics	.990*							
School A								
Reading		527.7	549.6[b]	544.1	542.9	556.3[b]	555.8	1
Mathematics		530.4	556.4[b]	548.7	549.8	563.1[b]	563.0	1
School B								
Reading		567.8	584.5[b]	583.4	571.6	585.4[b]	585.3	3
Mathematics		569.5	587.0[b]	585.5	571.7	588.8[b]	588.1	3
School C								
Reading		521.5	540.6[b]	538.0	533.0	545.2[b]	545.0	2
Mathematics		529.5	552.6[b]	547.9	545.4	557.8	558.1	2

Maintaining/ declining schools (N=3)								
Reading	.108							
Mathematics	.910							
School D								
Reading		530.6	541.5	546.9	535.6	549.4[b]	548.1	6
Mathematics		531.3	543.6	549.5	540.9	555.1[b]	553.0	4
School E								
Reading		542.1	557.0	558.2	552.3	565.1[b]	565.9	4
Mathematics		542.7	555.9	560.3	546.0	560.3[b]	559.1	6
School F								
Reading		525.4	539.1	541.8	537.1	548.5	549.7	5
Matheamtics		531.0	545.6	549.3	543.5	555.5	555.9	5

[a]The Residual Achievement Score = Observed School Average Spring Achievement - (Predicted School Average Spring Achievement), where Predicted School Average Spring Achievement is obtained by substituting the School Average Fall Achievement in the least squares regression equation for all schools of School Average Spring Achievement on School Average Fall Achievement.

[b]Those schools whose postachievement scale scores exceeded the Predicted School Average Spring Achievement scale scores.

*$p < .05$.

reading and mathematics scale scores.

The correlation between two years of residual achievement scores from schools D, E, and F did not show a significant statistical difference, so these three schools were classified as maintaining/declining schools. An analysis of columns two and three in Table 1, reveals that none of these three schools were consistent in exceeding their predicted achievement scores in reading or mathematics over the same two-year period.

In the final analysis, there is no evidence in the results (Table 1) that a small fraction of schools have powerful learning effects among a larger group of nearly equivalent schools. Taken together, the results (Table 1) suggest that some schools exhibit consistent learning effects of their students. The results also allow for the ranking of schools according to the amount by which they exceed or fall below their predicted scores. The six schools (Table 1) have been ranked thusly, with school A ranking the highest in both reading and mathematics and school F ranking the lowest in reading and mathematics. As illustrated, school C ranked second in both reading and mathematics, school B ranked third in both reading and mathematics, school E ranked fourth in reading, while school D ranked fourth in mathematics, school F ranked fifth in reading and mathematics, and finally, school D ranked sixth in reading, while school E ranked sixth in mathematics. The six schools do satisfy the researcher's concern for having student populations with a diversity of range in achievement scores.

Also of interest were the social, racial, and economic status

makeup of the schools selected for the sample. Such information was sought to identify possible intervening variables, things that make it easier or harder to improve achievement in schools. The eligibility criteria for free lunch were used to determine the socioeconomic make-up of the schools chosen for the sample. All six schools' student populations are from low socioeconomic status families based on the percentage of students qualifying for free lunch (Table 2). School B had the lowest number of students participating in free lunch program with 56.03 percent, while school F had the highest participation with 74.47 percent of its students participating. The eligibility criteria for free lunch participation are noted in Table 3. Examination of the table reveals that maximum family income eligible for free meals ranges from $5,600 annually with a family size of one child to $18,160 annually with a family size of eight children.

To further satisfy the concern for selecting schools with homogeneous student populations, an investigation was made to determine the racial composition of each of the six schools in the sample. The racial composition of all six schools in the study were homogeneous in nature (Table 4). Over the two-year period from 1980 to 1982, four of the six schools had a 99.5 percent to a 100 percent black student population, while a fifth school a 93.6 percent black student population. The sixth school was considerably different from the other five schools with a 53.4 percent of the population composed of black students.

Also revealed (Table 4) are the number of years tenure that each of the six principals have in their present buildings as well as in the

Table 2. Free and reduced price lunch report of selected schools

School	Enrollment	Free	Reduced	% free
A	1,710	1,117	49	65.32
B	1,476	827	75	56.03
C	1,384	1,004	37	72.54
D	1,667	1,068	60	64.07
E	1,790	1,095	30	61.17
F	1,030	767	15	74.47

Table 3. Eligibility criteria for free lunch

Family	Maximum family income eligible for free meals		Maximum family income eligible for reduced meals	
	Annually	Monthly	Annually	Monthly
1	$ 5,600	$ 467	$ 7,970	$ 664
2	7,400	617	10,530	878
3	9,190	766	13,080	1,090
4	10,990	916	15,630	1,303
5	12,780	1,065	18,190	1,516
6	14,570	1,214	20,740	1,728
7	16,370	1,364	23,290	1,941
8	18,160	1,513	25,840	2,153
Each additional member	1,790	149	2,550	213

Table 4. Configured enrollment, racial composition of schools and principal tenure (1980-82)

School	No. of years principal tenure		Configured enrollment			Percent
	Building	System	Black	White	Total	Black/White
A	5	6	1,708	2	1,710	99.9/ 0.1
B	3	12	788	688	1,476	53.4/46.6
C	3	8	1,295	89	1,384	93.6/ 6.4
D	3	3	1,660	7	1,667	99.6/ 0.4
E	5	6	1,781	9	1,790	99.5/ 0.5
F	5	5	1,030	0	1,030	100.0/ 0.0
Total			8,106	951	9,057	89.5/10.5

St. Louis Public School system. The principal of school B has the longest tenure as principal of the six while he only has three years tenure in his present building. The principal of school C, likewise has three years of tenure in his present building with a total of eight years tenure as a principal. The principal of school D has three years tenure in his present building and his total years of tenure have been three years. Finally, the principals of schools A, E, and F have been in their present buildings for five years, which is also the number of total years tenure they have. All of the principals had enough experience, and had been in their present buildings long enough to satisfy the concerns of the present study (Table 4).

The final concern guiding the selection of schools for the sample was the size of the student populations in each of the schools. Table 4 shows the average school by school enrollment for the two years encompassing the present study, and reveals that all six schools are similar

in the size of their enrollments.

In summary, the guiding force in the selection of schools was the concern for the identification and isolation of intervening variables that could help or hinder the affects of schools on student achievement. Variables such as varying ranges of student achievement, homogeneous socioeconomic backgrounds, principals' tenure in their present buildings, and size of student enrollments were all controlled for from the outset of the study.

Description of the Instruments

The instruments used in the present study were chosen based on their capacity to measure: 1) principal performance, 2) opinions, attitudes, and perceptions of students, teachers, principals, superintendents, and parents about principal performance, and 3) the relationship between principal performance and student achievement. Guided by these criteria, instruments were acquired from the New York School Improvement Project (1), the National Study of School Education (83), Grant (44), and Manatt et al. (72). All of the instruments had been used in previous major studies.

The New York School Improvement Project compiled a list of five factors which have been shown to be determinants of school effectiveness by Edmonds (29). The New York researchers developed a 44-item teacher questionnaire, a 29-item teacher interview schedule, and a 27-item administrator interview schedule. The items on each instrument were put into categories relating to each of the following five performance

factors identified by Edmonds (29): 1) strong administrative leadership, 2) school climate conducive to learning, 3) school-wide emphasis on basic skills instruction, 4) optimistic teacher expectations of pupil ability, and 5) ongoing assessment of pupil progress.

The 44-item teacher questionnaire (see Appendix C) requires that each teacher respondent indicate "yes" or "no", or check the most applicable answer relating to one of the five factors. Administrative style is assessed through twelve items concerning the amount of communication, staff interaction, and administrative support teachers report to be present in their schools, as well as the existence of a written school-wide philosophy, and adequate provision of materials. Nine items dealing with academic objectives, subject matter, and instructional patterns and methodology measure the instructional emphasis factor. School climate is measured through 16 items concerning staff morale, students' attitudes, building maintenance, school-wide discipline, security and safety policies. The expectations factor is measured by two questions regarding teachers' attitudes towards students. Ongoing assessment of pupil progress is measured by five items relating to testing, use of achievement and diagnostic results, and individualization of instruction.

A preliminary survey was started by the New York School Improvement Project in September, 1979, for the purpose of testing the applicability of the five school factors as determinants of academic outcomes to the New York City schools and to evaluate the data collection instruments. A total of 224 teachers in nine case study schools completed questionnaires, and 240 teachers provided interviews. Seventeen administrators,

37 auxiliary staff members, and 16 parents were interviewed.

The New York School Improvement Project also developed an instrument called the Building and Grounds Observational Assessment to gather data on the physical characteristics of the buildings included in the study. This document identifies 13 areas in the school building most often used. Each area is rated for: 1) adequacy for normally intended purposes, 2) condition of maintenance, 3) cleanliness, and 4) attractiveness.

Each of the preceding categories is assessed by the following four-point scale: 1) excellent, 2) good, 3) fair, and 4) unsatisfactory.

This instrument (see Appendix C) contains additional pages for informal notes about the nature of activities taking place in each of the 13 areas.

Since most of the data collected for the School Improvement Project are qualitative in nature, no statistical test of reliability was made on the data collection instruments. However, the project administrators did take steps to assure the validity of the instruments by making judgments regarding inclusion and wording of items, placement of items into categories, and determinations of the sufficiency of items in assessing the teachers', administrators' and parents' opinions. The office of Educational Evaluation of the New York City Public Schools analyzed and revised the instruments for further use. Finally, the teacher questionnaire was subjected to a rigorous factor analysis which revealed that the items were selected in groups that could be identified with the five factors characteristic of improving schools.

In the present investigation, each of the items in the School Improvement Opinion Questionnaire was collated, tabulated and analyzed. Wherever proportional differences between improving and maintaining/declining schools exceeded ten percent, a Chi-square test to determine significance was used.

Three of the instruments used in the present study were developed by the National Study of School Education (83). These were the Parent, Teacher and Student Opinion Inventories. The development of these instruments was followed by a three-phase design. The initial phase began with a review of questionnaire development, an examination of parent questionnaires from other studies, and a review of the three opinion inventories being developed. Out of this research came the first drafts of the instruments. The initial projection of items were reviewed by a "jury of experts" consisting of doctoral-level students and professors in instruction and curriculum, school administration and research.

Phase two of the instruments' development involved field testing them in over 53 school communities representing varying sizes, socioeconomic compositions, and school levels.

Phase three of the instruments' development involved the determination of the reliability of the instruments and the internal consistency of each item. Only those items which proved consistent with the total instruments were retained in the final copies. The coefficient alpha reliability of internal consistency for the Parent Opinion Inventory was .91. This coefficient was based on the responses of 1,566 parents of elementary and secondary students in nine states during the 1978-79 school year. The coefficient alpha reliability of internal consistency

for the Teacher Opinion Inventory was also .91, and was based on the responses of 1,435 elementary and secondary teachers from selected schools in seven states during the 1978-79 school year. The coefficient alpha reliability of internal consistency for the Student Opinion Inventory proved to be .93. This coefficient was based on the responses of 10,120 students from twenty-seven secondary schools in twenty states.

The Teacher, Student, and Parent Opinion Inventories are documents which identify valuable data for the school administrator to guide in decision-making relative to program development, policy formation, administrative organization, faculty development, and community relations. The Teacher Inventory consists of 64 items, the Student Inventory contains 34 items, and the Parent Inventory contains 53 items. All three instruments contain a part B which gives the respondents the opportunity to express themselves in their own words (see Appendix C).

A five-point, Likert-type scale represents the opinions of the teachers, students, and parents toward their school programs and is illustrated by the following: 1) very satisfied, 2) satisfied, 3) neither satisfied nor dissatisfied, 4) dissatisfied, and 5) very dissatisfied.

In order to measure principals', teachers', and superintendents' perceptions of principal competency, McIntyre and Grant (66) developed a three-part instrument called the Administrative Competency Rating Scale (ACRS). Part one is a 32-item questionnaire called the Administrative Competency Priority Rating Scale, part two is called the Administrative Competency Performance Rating Scale, and part three is a demographic survey (see Appendix C).

In the development of the ACRS, a quartile ranking of 32 competencies was used in order to identify the priorities that might be set by high school principals (see Appendix E). Twenty-five high school principals from large and small schools were given the instructions: "For each of the following competencies, indicate your estimate of its importance with regard to the effective performance of your job as an instructional leader during the next school year." The selections were placed on a numerical scale which gave a rank score of one for the competencies viewed most important regarding effective administrative performance. This scale ascended to a point where the competencies considered least important regarding effective principal performance received a ranking of ten.

Competencies as defined by McIntyre (65) are, "the smallest unit of behavior that, if employed at a quality level, will make a discernible difference in the fulfillment of the responsibility." There are a total of Eight Areas of Key Responsibilities of high school principals with each area containing two or more competencies (see Appendix F). From this list of 32 competencies, part one of the instrument was derived and named Administrative Competency Priority Rating Scale. A random drawing was held to determine the order for the competencies to be presented in the questionnaire.

Using the same 32 statements, part two of the instrument was derived, and named the Administrative Competency Performance Rating Scale. Since the order of all 32 items is randomized in each questionnaire, the scores on each are considered as two independent observations (64). This

section of the questionnaire deals with the degree of competence possessed by the principals.

Each of the statements on both the Priority and Performance Rating Scales is assessed by a seven-point scale as follows:

High Importance						Low Importance
7	6	5	4	3	2	1

The number seven is used to indicate the highest priority and one to indicate the lowest priority, with the numbers six to two indicating varying degrees of priority, from high to low. Responses are recorded by circling a number at the end of each statement (see Appendix C). Each principal is asked to evaluate himself on the one-to-seven scale, as to the degree of competence he feels he possesses for each statement. Additionally, each superintendent and teachers are asked to evaluate their high school principal's performance on the competency statements.

For the purpose of fulfilling doctoral requirements, Durrence (26) chose as his theme, "Determining the Validity of An Instrument Designed to Measure Administrative Competencies." Using McIntyre and Grant's (66) Administrative Competency instrument as the basis of his study, Durrence applied several tests of validity and reliability to McIntyre and Grant's Administrative Competency Rating Scale. Results of Durrence's study showed that the ACRS was a valid and highly reliable instrument for measuring administrative competency. A form of the Leadership Behavior Description Questionnaire (LBDQ) was the instrument used as the criterion reference to test the criterion-related validity of the ACRS. The correlation between the total scores on the ACRS and the LBDQ was .66,

significant at the .001 level. The measure of reliability shown was .97, significant at the .001 level. Four tests were used to determine the reliability of the ACRS. The correlation coefficients for odd-even halves was .89, and .71, respectively, both significant at the .001 level.

The third section of the McIntyre and Grant (66) instrument is called the Personal Data Questionnaire, and is used to collect demographic data from the teachers, principals, and superintendents participating in the study (see Appendix C). The questionnaire contains seven questions for teachers and six questions for principals and superintendents. The questions are multiple-choice in design to facilitate answering. The first four questions are the same for all three groups of respondents. These are statements of sex, age, marital status, and educational attainment. On the teacher questionnaire, Question five deals with the number of years teaching experience. Questions six and seven deal with the number of years at their present schools and the number of years with their present principals. On the principal and superintendent Personal Data Questionnaire, question five deals with the number of years administrative experience. Question six on the principal questionnaire deals with the number of years spent at his present school, and for the superintendent, the number of years in his present school district.

Edmonds (29) described five characteristics of effective principals. Drawing from these characteristics, Manatt et al. (72) designed an eleven-term Critical Work Analysis (CWA) instrument to log the work activities of the principal (see Appendix C). Each respondent was asked

to log his activities for a period of one month. All activity was divided into three areas: 1) public relations, 2) instructional leadership, and 3) management. There was a total of eleven subareas with each major area containing at least two subareas. When the logging process was completed, the number of minutes spent during and outside of the normal working day was translated into percentage of time worked.

Collection of Data

This part of the study was divided into three phases: 1) the selection and training of research team members, 2) the field testing of data-gathering techniques, and 3) the actual gathering of data.

The first phase of data collection involved selecting and training six research team members. The issue of who should conduct survey research in educational settings is touched on throughout the literature. Wright (118) indicated that an educational surveyor must be conversant with educational method and practice, in addition to having methodological skills. Six team members were selected who met his criteria. Four of the six have served in administrative positions in educational settings and are personally familiar with the dimensions of administrative responsibility. In addition to experience in educational administration, two team members (who served as trainers) have extended experience with research methodology. One has taught and carried on research on the college level, while the other has served as a trainer of researchers for the St. Louis Public School System for five years. Three of the team members have served as research assistants on the university level as

well as working in public education, and the sixth team member has served as a curriculum specialist and an educational consultant for seventeen years.

The team members received short-term training on the purposes of the surveys, the intent of the questions, and the necessity for asking questions exactly as printed and carefully recording responses. They all took turns interviewing each other with the trainers commenting on proper procedures and mistakes.

The second phase of data collection involved the field test of the interview schedule and refining of interview skills. Three of the team members interviewed one administrator while the other three team members interviewed one teacher. The data gathered by the six researchers when reviewed and analyzed by the present researcher, turned out to be very similar in their respective cases with considerable overlap of the information collected. Although the interview schedule had been used in previous studies, the field test helped to refine the actual administration of it for the purposes of the present study. From the trial application of the interview schedule and field test of the research team members, it was determined that the study could progress to actual implementation.

Because of concerns expressed by teachers and administrators about possible union intervention to block the present study, closely controlled observations of teachers and principals were not carried out as planned. However, critical-incident techniques were used to collect similar types of information collected from controlled observations.

This technique, as usually applied, involves studying the performance of one group of individuals, such as teachers, by asking another group, such as principals, to describe "critical incidents" that relate to the performance of the first group. For example, one principal was asked, "What is the major problem you're having with the teachers?" His response was, "They don't feel obligated to supervise the students beyond the immediate vicinity of their classrooms during the passing periods." A teacher was asked, "Does your principal have a good discipline policy in the school?" Her response was, "Yes, he kicks them out of school." These kinds of data were collected throughout the study to fill in the gaps created by the absence of controlled observations.

The third phase of data collection was initiated by gaining permission from the superintendent of the St. Louis Public School System to conduct the present study in six of the St. Louis high schools (see Appendix B). Three district superintendents were then sent a letter briefly explaining the purpose of the investigation and asking for further permission to conduct research in the selected schools in their districts (see Appendix A). Permission was granted by all three superintendents. Letters, followed by telephone calls to all of the selected principals, provided the opportunity to meet with each principal to explain and discuss the study. Because only three months remained before the closing of school, it was impossible to meet with each faculty; therefore, each principal was asked to suggest a teacher in his school to coordinate the faculty section of this study.

Each high school principal in the six schools was sent a packet

containing an instruction sheet, a Demographic Sheet, a Competency Priority Questionnaire, a Competency Performance Questionnaire, and a Critical Work Analysis (CWA) packet.

The teacher liaison for each school received twenty-five similar packets, without the Critical Work Analysis (CWA) materials. The teacher liaisons were asked to hand out packets to twenty-five teacher volunteers in their respective schools. To ensure confidentiality, each of the twenty-five teacher participants was instructed to return the completed questionnaires in sealed envelopes to their teacher liaisons. The completed surveys were then picked up at designated times by the present researcher.

The three district superintendents were sent the same materials received by the principals, except that the Demographic Data Sheet contained questions more applicable to superintendents. Each superintendent returned his packet by mail.

The parent-teacher chairperson in each high school was contacted and asked to serve as the liaison person in delivering and collecting surveys to and from parents and students. Two of the parent-teacher chairpersons volunteered to participate in the study. Each parent chairperson received fifteen packets to distribute and collect. Each packet contained one student and one parent questionnaire.

In three of the six schools, the Parent and Student Questionnaires were issued and collected from volunteers during the schools' Parent-Teacher Conference Days. In the sixth school, the Parent and Student Questionnaires were given to students representing all grade levels

during their study periods. They were asked to take the questionnaires home to be completed by themselves and their parents, and return them on the following day. There was a one hundred percent response on the part of parents and students in one school.

At the end of four weeks, three principals, two superintendents, and the two parent liaisons were contacted by telephone because their questionnaires had not been returned. Two of the principals stated that they had just overlooked their questionnaires, and returned them immediately. The third principal had misplaced his packet of materials. Another packet was sent to him which he completed and returned promptly.

Two of the three district superintendents completed and returned their packets after one follow-up call, however, the third superintendent misplaced his packet, and was sent another, which he returned promptly.

The two parent liaisons were contacted and both stated that due to the closing of schools for the summer vacation, they lost contact with most of their member parents. One of the parent liaisons received eight of the 15 packets distributed, while the other parent received twelve of the 15 packets originally distributed.

There was a one hundred percent return of questionnaires by superintendents and principals, and 114 out of 150 teachers and 80 out of 80 students responded to the data collection instruments that were distributed (Table 5).

Concurrent with surveying all respondents, the research team members contacted principals, assistant principals, and teachers to set up interview schedules. Each of the six research team members was assigned

Table 5. Percent of questionnaire response by role

Role	Number distributed	Number of respondents	Percent of return
Superintendents	3	3	100
Principals	6	6	100
Teachers	150	114	76
Students	90	80	89
Parents	90	72	80

to a school to interview the principal and the assistant principal of instruction. Additionally, two groups consisting of three research team members per group, were assigned to interview teachers. Each group was responsible for interviewing teachers in three schools. Approximately three weeks were spent interviewing teachers and principals and two weeks were spent collecting anectodal information as well as carrying out informal observations.

Treatment of the Data

The data obtained from the survey instruments were separated into descriptive and inferential categories. The descriptive data were quantified by means of percentages and were analyzed by chi-square techniques to test the basic hypotheses concerning effective leader behaviors examined by other researchers (112, 69, 15, 94, 28).

The statistical data obtained from the Administrative Competency

Rating Scale were analyzed to determine statistical significance through the services of the Iowa State University Computation Center. The basic statistical program used for this purpose was the Statistical Package for the Social Sciences (SPSS) (85). The statistical treatment for this portion of the present study was performed using the t-test to compare the leadership behaviors of principals in improving versus maintaining/declining urban high schools, as perceived by principals, teachers, and superintendents. Two-tailed probability was determined at the .05 and .01 levels of significance. The computing formula used for the t-test is (53):

$$\text{Test Statistic} = \frac{\text{Statistic - Parameter}}{\text{Standard Error of the Statistic}}$$

$$t = \frac{(\bar{X}_1 - \bar{X}_2) - (u_1 - u_2)}{S_{\bar{x}_1 - \bar{x}_2}}$$

Three criterion variables and two independent variables were developed for the present study (44). The three criterion variables were derived from compilations of the items on the lists of thirty-two competency statements that constituted the priority ratings, the performance ratings, and the obtained discrepancy scores. These thirty-two competency ratings were combined into Eight Areas of Key Responsibility. The ratings on each key area were used to form the basis for the criterion variables. These criterion or dependent variables are important because the data collected from them are a reliable means by which to capture the perceptions of the respondent groups categorized under the independent variables of role of the respondents and type of schools.

The independent variable of role of the respondents consists of three groups: 1) the principals, 2) the teachers, and 3) the superintendents. These groups play an important part in this study because they are key positions in terms of observing administrative behavior. Individuals in these roles generally have some strong feelings about the way in which responsibilities should be carried out by principals. This group, then, would appear to be a reliable source for collecting data regarding the actual and ideal way in which principals are perceived to administer their duties.

The second independent variable was the type of school. The six schools studied were divided into two types: 1) improving and 2) maintaining/declining (Table 1). These two subcategories of type are important because an analysis of data collected under these two differing circumstances allows for the recommendation of practices that could improve the quality of education in urban high schools, if any significant differences are observed between the subtypes. Table 6 provides a summary of the variables, criterion and independent, and shows the levels as well.

Findings

The basic problem for this investigation was to examine the work responsibilities and behavior of principals in urban innercity high schools as they relate to student achievement. To accomplish this goal, data were collected from sample groups of high school principals, teachers, students, parents and superintendents.

A statistical regression analysis suggested by Alexander et al. (2)

Table 6. Variables used in the study

Variable	Description of the variable
Criterion	
1	Scores on Priority Questionnaire
2	Scores on Performance Questionnaire
3	Discrepancy Score
Independent	
1	Role of the Respondent
1a	Principal
1b	Teacher
1c	Superintendent
2	Improving Schools (A,B,C)
2a	School A
2b	School B
2c	School C
3	Maintaining/Declining Schools (D, E, F)
3a	School D
3b	School E
3c	School F

was used to initially classify schools into two categories, either improving or maintaining/declining in terms of achievement (see Table 1). Four correlations were calculated: 1) one for pre- and postresidual reading scores in the improving schools over a period of two years, 2) one for pre- and postresidual mathematics scores in the improving schools over a two-year period, 3) one for pre- and postresidual reading scores in maintaining/declining schools over a two-year period, and 4) one for pre- and postresidual mathematics scores in the maintaining/declining schools over a two-year period. Of the four correlations calculated, two were large enough to pass conventional standards of statistical significance (see Table 1).

Since the data set contained both descriptive and inferential measures on the part of principals and because schools were categorized as improving or maintaining/declining depending on the achievement scores of their students, both inferential and descriptive analyses were necessary to ascertain relationships, if any, between the two groups with regard to principal behavior and student achievement. The findings of the descriptive data analyses are reported in five basic areas, while the findings of the inferential data analyses are reported in nine basic areas.

The descriptive analyses were based on Edmonds' (29) five factors for determining effective leader behaviors. First, findings related to strong administrative leadership were presented. The second area of findings related to improving the climate of the school by the principal. The third area of findings related to improving the climate of the

school by the principal. The fourth area of findings related to high expectations for teachers and students by the principal. Finally, the fifth area of findings related to the principal's emphasis on the assessment of students.

In the second phase of this study, inferential techniques were used on data gathered by McIntyre and Grant's (66) Administrative Competency Rating Scale (ACRS) to measure eight areas of key responsibility. They are as follows: 1) goal-setting, 2) staffing, 3) allocating time and space, 4) providing materials, equipment and facilities, 5) coordinating noninstructional services, 6) developing inservice training, and 7) evaluating processes and products of instruction. From these eight key areas of principal responsibility, nine hypotheses were generated along with 72 subhypotheses. Instruments used in data collection can be found in Appendix C.

Drawing on the conceptualization of effective schools as defined by Edmonds and Frederiksen (30) and the linkage to student achievement as suggested by Alexander et al. (2) and Rutter et al. (94), it was postulated that schools that consistently produced high-achieving students over a period of time, are led by more effective principals. Thus, when five measures of effective principal behavior were compared across six schools, it was expected that a significant difference would exist between the behaviors of principals in high-achieving schools and low-achieving schools.

Five measures of administrative effectiveness

From this portion of the data analysis, schools were categorized as either improving or maintaining/declining. Each category consisted of three schools. Since all teachers had completed the New York School Improvement Teacher Questionnaire (1), percentages could be calculated showing the proportion of teachers from both types of schools who had indicated that a particular factor was or was not a characteristic of their school. The first of the five factors analyzed was the Administrative Style factor (Tables 7, 8, and 9).

To analyze the data (Table 7), descriptive information was gathered to help in understanding why the various schools are different. Although there was a slight difference in the opinions of teachers from the improving schools and those representing the maintaining/declining schools concerning questions $Q.:_{1b}$, $Q.:_{1d}$, and $Q.:_{1f}$, it does not appear to be large enough to make a difference in the schools.

Continuing with the examination of the administrative style factor to determine how assertive the principals were in carrying out their administrative duties, 43.3 percent of the teachers in the improving schools usually felt that their principals were usually more assertive as administrators compared to 27.5 percent of the teachers from the maintaining/declining schools who usually felt that their principals were assertive administrators ($Q.:_{1a}$, $Q.:_{1b}$, and $Q.:_{1c}$) (Table 8). The data further revealed that there were no marked differences between the perceptions of students and parents from maintaining/declining or improving schools. However, the teachers in school B (56.4 percent) felt that

Table 7. Summary of New York school improvement teacher questionnaire results for administrative style factor by school in percent

Schools	(N)	Responses (Yes)	(No)
Improving			
School A	18	53.3	46.7
School B	18	65.2	34.8
School C	18	54.0	46.0
Maintaining/declining			
School D	18	55.1	44.9
School E	16	57.5	42.5
School F	14	57.7	42.2

their principal was usually more assertive, which is a marked difference compared to how the teachers in all of the other schools felt. It is interesting to note that only 15.4 percent of the students in school B felt that the principal was usually more assertive.

To examine more fully the statistical data found in Tables 7 and 8, five hypothetical questions relating to administrative style and school effectiveness were raised ($Q.:_{1a}$, $Q.:_{1b}$, $Q.:_{1c}$, $Q.:_{1e}$, and $Q.:_{1g}$). The analysis of these findings reveals that a marked difference was established for the comparison of improving school principals and maintaining/declining school principals for three of the critical work activities ($Q.:_{1a}$, $Q.:_{1b}$, and $Q.:_{1c}$) (Table 9). As observed, principals from improving schools tended to support teachers and emphasize discipline in the school noticeably more than principals from maintaining/declining schools. However, principals from improving schools did not, as shown,

Table 8. Summary of teacher, student and parent opinion scores for administrative style factor by school in percent (Principal's Assertiveness)

	Improving schools				Maintaining/declining schools			
	A	B	C	Total average	D	E	F	Total average
Teachers (N)	18	17	10		16	16	14	
Always	9.3	25.5	10.0	14.9	4.2	18.8	14.3	12.4
Usually	29.6	56.9	43.3	43.3	29.2	27.1	26.2	27.5
About half	31.5	11.7	36.7	36.7	45.8	31.3	33.3	36.8
Seldom	22.2	5.9	10.0	10.0	20.8	14.6	23.8	19.7
Never	7.4	0.0	0.0	0.0	0.0	8.2	2.4	3.5
Students (N)	11	15	15		12	15	15	
Always	27.3	11.4	7.7	15.5	9.1	18.0	6.7	11.5
Usually	36.4	15.4	23.1	15.0	18.2	37.0	26.7	27.3
About half	18.1	19.4	38.5	25.3	45.5	29.0	46.7	40.4
Seldom	9.1	13.4	15.4	12.6	27.3	11.0	0.0	19.1
Never	9.1	40.4	15.3	21.6	0.0	5.0	20.0	8.3
Parents (N)	8	15	12		11	15	8	
Always	0.0	8.3	16.7	8.3	18.2	13.3	0.0	10.5
Usually	37.5	42.3	25.0	34.9	36.4	40.0	25.0	33.8
About half	25.0	39.3	25.0	29.8	9.1	26.7	37.5	24.4
Seldom	25.0	11.0	16.7	17.6	36.4	13.3	37.5	29.1
Never	12.5	0.0	16.7	9.7	0.0	6.7	0.0	2.2

Table 9. Summary of principals' critical work activities time analysis[a] for administrative style factor by school in percent of hours

CWA	Improving schools			Total average hours	Maintaining/ declining schools			Total average hours
	A	B	C		D	E	F	
Supports teachers	25	12	10	15.6	5	15	10	10
Communicates mission of school	3	3	15	7.0	10.7	5	24	13.2
Emphasizes discipline	5	15	20	13.3	9	5	3	5.6
Emphasizes staff interaction	6	2	5	4.3	2	5	2	3.0
Interprets test scores	8	5	5	6.0	2	10	3	5.0

[a]Each principal logged all working hours for one month (160 hrs.).

communicate the mission of the school to teachers more than their counterparts from the maintaining/declining schools. In fact, the maintaining declining schools' principals spent double (13.2 percent) the amount of time communicating the mission of the school to their teachers compared to that of the principals from improving schools who spent only seven percent of their time doing so. There were no marked differences observed between the two categories of principals while analyzing data to test the principals' emphasis on staff interaction and interpretation of test scores to parents, teachers and students ($Q.:_{1e}$, $Q.:_{1g}$).

The next major research question deals with the relationship between the principal's emphasis on instruction and measures of student achievement scores. To understand this relationship, data were collected from three instruments. The first of these instruments was Manatt et al.'s (72) Critical Work Activities instrument. Data were collected on the

instructional activities of the principals for a period of four weeks (Table 10).

The principals from the improving schools, generally supported the improvement of instruction more than principals from maintaining/declining schools (Table 10) but again school B stands out. The principal in school B spent double the amount of time (20 percent) compared to all of the other principals in supporting the improvement of instruction.

The second instrument used to measure the instructional emphasis factor was the New York School Improvement Teacher Questionnaire. In the area of reading and mathematics a proportional difference in the responses of teachers from both classification of schools exceeded ten percent (Table 11). Therefore, these data were submitted to a chi-square test for significance (see Table 22). Further analysis of the data revealed that there were no marked differences between the two categories of principals in the amount of time spent visiting the teachers' classrooms ($Q.:_{2d}$). There is a slightly different trend observed in the analysis of classroom visits. The principals from the improving schools, as observed, did not emphasize classroom visits (83.3 percent) as much as the principals from maintaining/declining schools (85.2 percent).

In a final attempt to decide principals' emphasis on instruction, teachers, students and parents were given a questionnaire which asked for their opinions of how much emphasis was placed on instruction by their principals. The questionnaires specifically addressed $Q.:_{2b}$ which measured the task-orientation of teachers and $Q.:_{2c}$ which measured the

Table 10. Summary of principals' critical work activities time analysis for principal's instructional emphasis factor by school in percent of hours

CWA	Improving schools			Total average hours	Maintaining/ declining schools			Total average hours
	A	B	C		D	E	F	
Supports improvement of instruction	10	20	5	35	7	10	5	22
Coordinates instructional program	6	2	5	13	6	5	5	16

Table 11. Summary of New York school improvement teacher questionnaire results for principal's instructional emphasis factor by school in percent

Schools	Responses[a]		Responses[b]	
	(Yes)	(No)	(Yes)	(No)
Improving				
School A	55.5	44.5	72.2	27.8
School B	66.7	33.3	88.9	11.1
School C	72.2	27.8	88.9	11.1
Total average	64.8	35.2	83.3	16.7
Maintaining/declining				
School D	50.0	50.0	91.7	8.3
School E	43.8	56.2	78.1	21.9
School F	64.3	35.7	85.7	14.3
Total average	52.7	47.3	85.2	14.8

[a]Emphasizes reading and mathematics.

[b]Emphasizes classroom visits.

Table 12. Summary of teacher, student and parent opinion scores for the teachers' instructional emphasis factor by school in percent

		Improving schools		Maintaining/ declining schools	
		Task[a]	App[b]	Task[a]	App[b]
Teachers	(N)	45		46	
Always		5.4	12.9	12.5	24.1
Usually		45.7	50.0	46.7	44.1
About half		37.7	31.5	42.5	17.3
Seldom		5.2	1.8	7.5	10.4
Never		3.3	1.8	0.0	4.2
Students	(N)	41		42	
Always		19.4	17.2	4.2	29.1
Usually		39.6	43.2	43.1	35.5
About half		26.9	22.4	37.1	23.2
Seldom		6.7	12.7	13.6	12.3
Never		4.4	2.2	3.0	0.0
Parents	(N)	35		34	
Always		13.3	13.3	9.4	10.2
Usually		35.0	52.2	42.7	41.6
About half		37.2	32.4	34.4	27.4
Seldom		18.3	9.2	12.7	18.5
Never		5.0	5.0	4.2	2.2

[a]Emphasizes that teachers are task-oriented.

[b]Emphasizes that teachers apply appropriate principles of learning.

application of appropriate principles of learning by teacher in their instructional methodology. The respondents were to answer on a five-point Likert-type scale, ranging from 1--never to 5--always (Table 12).

While close to a majority of the teachers (44 to 50 percent) from categories of schools agreed that they (the teachers) were usually task-

oriented and applied appropriate principles of learning, only 5.4 percent of the improving schools' teachers felt they were always task-oriented compared to 12.5 percent of the maintaining/declining schools' teachers (Table 12). Similarly, more of the maintaining/declining schools' teachers (24.1 percent) always felt that they applied appropriate principles of learning compared to only 12.9 percent of the teachers from the improving schools. There were no marked differences in how the students and parents from both improving and maintaining/declining high schools felt about the instructional emphasis factor (Table 12).

Another factor to be considered in this analysis was the area of school climate. That is, do principals of improving schools tend to put more emphasis on improving the school's climate than principals of maintaining/declining schools? In this section of the data analysis, teachers and students were given questionnaires which asked for their perceptions of the amount of emphasis their principals put on improving the school's climate. Four climate factors were examined. These included: 1) cleanliness of the school, 2) school-wide discipline, 3) teacher satisfaction, and 4) student cooperation (Tables 13, 14, 15, 16).

Principals from improving schools did not, as observed, put more emphasis on improving the school climate (Table 13). A disproportionately higher number of teachers from school B felt that their principal emphasized keeping a clean building, student cooperation, teacher satisfaction, and school-wide discipline. Because there was a proportional difference close to or more than ten percent in teachers' responses from both classification of schools concerning discipline and teacher

Table 13. Summary of New York School improvement teacher questionnaire results for principal's climate emphasis factor by school in percent

	Responses[a]		Responses[b]		Responses[c]		Responses[d]		Total average
	(yes)	(No)	(Yes)	(No)	(Yes)	(No)	(Yes)	(No)	
Improving									
School A	61.0	39.0	61.0	39.0	94.4	5.6	83.3	16.7	
School B	100.0	0.0	100.0	0.0	100.0	0.0	88.9	11.1	
School C	66.7	33.3	55.6	44.4	88.9	11.1	66.7	33.3	
Total average	75.9	24.1	72.2	27.8	94.4	5.6	79.6	20.4	80.5
Maintaining/declining									
School D	83.3	16.7	66.7	33.3	66.7	33.3	83.3	16.7	
School E	87.5	12.5	75.0	25.0	81.3	18.7	68.8	31.2	
School F	85.7	14.3	50.0	50.0	71.4	28.6	85.7	14.3	
Total average	85.5	14.5	63.9	36.1	73.0	26.9	79.3	20.7	75.5

[a]Emphasis on clean building.

[b]Emphasis on school-wide discipline.

[c]Emphasis on teacher satisfaction.

[d]Emphasis on student cooperation.

satisfaction, the data were tested for significance with a chi-square statistical procedure with the teachers being the unit of analysis (see Table 22).

An assessment of Table 14, which deals more specifically with emphasis on building maintenance ($Q._{3a}$), substantiates the findings in Table 13 as the improving schools received an average rating of 74.7 percent compared to a 68.7 percent rating for the maintaining/declining schools. Again these findings indicate that there are no marked differences between the improving and the maintaining/declining schools in terms of how they are maintained. It is of interest to note, however, that the school with the highest rating, school B, is one of the improving schools, and the school with the lowest rating, school C, is also from the category of improving schools.

Table 15, which further substantiates the findings in Tables 13 and 14, deals more specifically with emphasis on school-wide discipline and security. The findings reveal that principals from improving schools spent an average of 13.3 percent of their time emphasizing school-wide discipline compared to principals from maintaining/declining schools who spent a similar amount of 8.3 percent of their time emphasizing school-wide discipline. Again, the data reveal that there may be a difference between the two categories of schools regarding emphasis on discipline by the principal.

The final question addressed in this section dealt with differences that may exist in student cooperation and teacher satisfaction between

Table 14. Summary of building and grounds observational assessment by school and percentile rank

Observed areas	Improving schools			Total average	Maintaining/declining schools			Total average
	A	B	C		D	E	F	
Building entrances	.75	.94	.56	.75	.75	.81	.63	.73
Stairwells	.75	.94	.56	.75	.63	.56	.50	.56
Halls	.75	1.00	.50	.75	.63	.63	.69	.65
Classrooms	.69	.75	.75	.73	.50	.63	.50	.54
Student bathrooms	.56	.81	.56	.64	.75	.50	.69	.65
Library	.63	.88	.88	.80	.88	.81	.94	.88
Auditorium	.69	.94	.56	.73	.75	.81	.75	.77
Gymnasium	.69	.88	.94	.84	.75	.50	.75	.67
Student lunchroom	.50	1.00	.56	.69	.56	.75	.50	.60
Teachers' cafeteria	.50	.88	.75	.71	.75	.75	.75	.75
Main office	.94	.81	.75	.83	.63	.75	.69	.69
Outdoor area	.69	.88	.63	.73	.75	.88	.63	.75
Landscaping	.75	.94	.75	.81	.50	.75	.56	.60
Security	.75	.75	.50	.67	.50	1.00	.75	.75
Total average rank	.69	.89	.66	.75	.67	.72	.67	.69

Table 15. Summary of principals' critical work activities time analysis for climate emphasis factor by school in percent of hours

CWA	Improving schools			Total average hours	Maintaining/ declining schools			Total average hours
	A	B	C		D	E	F	
Maintains physical facilities	3.0	5.0	10.0	6.0	6.0	5.0	5.0	5.3
Provides orderly environment	5.0	15.0	20.0	13.3	9.0	5.0	11.0	8.3
Supervises student personnel	10.0	5.0	5.0	6.7	5.0	5.0	14.0	10.3

the improving and the maintaining/declining schools. To examine this concept, two questions were used. Would teachers from improving high schools be more satisfied with their work than their counterparts from the maintaining/declining schools ($Q.:_{3c}$) and would students from improving schools be more cooperative with teachers and administrators than students from maintaining/declining schools ($Q.:_{3d}$)?

To examine these questions, each group was given a questionnaire which asked their opinions of teacher satisfaction and student cooperation in their schools (Table 16). There are no marked differences in the level of satisfaction for work felt by teachers in improving schools and those in maintaining/declining schools (Table 16). The teachers in the improving schools (32.8 percent), in fact, did not usually feel anymore satisfied than teachers (39.3 percent) from maintaining/

Table 16. Summary of teacher and parent opinion scores for climate factor by school in percent

		Improving schools		Maintaining/declining schools	
		Sat[a]	Coop[b]	Sat[a]	Coop[b]
Teachers	(N)	45		46	
Always		26.4		25.6	
Usually		32.8		39.3	
About half		26.6		21.7	
Seldom		14.2		11.0	
Never		0.0		2.4	
Students	(N)	41		42	
Always			18.4		22.7
Usually			40.5		40.1
About half			23.6		29.7
Seldom			10.0		5.9
Never			7.5		1.7

[a]Satisfied teachers.

[b]Cooperative students.

declining schools. Similarly, the students (40.5 percent) from improving schools were not usually anymore cooperative with teachers and administrators than students (40.1 percent) from the maintaining/declining schools.

In an attempt to examine principals' expectations of teachers and students, teachers were given a questionnaire which asked for their opinions of principal expectations in their school. Teachers were to answer by marking one of three response modes, high, moderate or low.

An analysis of the results revealed a marked difference in teachers' opinions regarding their principal's expectations of teachers and students (Table 17).

Table 17. Summary of New York school improvement teacher questionnaire results for teacher and student expectation factor by school in percent

Schools	(N)	Level of expectation by principal		
		High	Moderate	Low
Improving	3			
School A		11.1	55.6	33.3
School B		33.3	55.6	11.1
School C		16.6	55.6	27.8
Total average		20.3	55.6	24.1
Maintaining/declining	3			
School D		0.0	66.7	33.3
School E		12.5	50.0	37.5
School F		0.0	57.1	42.9
Total average		4.2	57.9	37.9

The majority of the teachers from both improving (55.6 percent) and maintaining/declining (57.9 percent) schools, felt that their principals had moderate expectations for them (Table 17). Further analysis, however, reveals that 20.4 percent of the teachers from improving schools felt that their principals had high expectations for teachers

and students compared to only 4.2 percent of the teachers from the maintaining/declining schools ($Q.:_{4a}$, $Q.:_{4b}$). A chi-square test to determine significance was used (see Table 22).

After analyzing data on how much time the principals spent developing strategies to insure that both teachers and students performed at high levels, it becomes clear, that with the exception of one principal, there is no marked difference in the amount of time that principals from either improving or maintaining/declining schools spend reinforcing their high expectations ($Q.:_{4a}$) (Table 18).

Table 18. Summary of principals' critical work activities time analysis for teacher and student expectation factor by school in percent of hours

CWA	Improving schools			Total average hours	Maintaining/ declining schools			Total average hours
	A	B	C		D	E	F	
Emphasizes strategies to improve achievement	8.0	1.0	10.0	6.3	5.0	10.0	5.0	6.7

It is interesting to note that while the principal in school B spent less time (one percent) reinforcing his high expectations (Table 18), his teachers (Table 17) felt that he had higher expectations for his students compared to how the teachers from the other schools felt regarding their principals.

Table 19. Summary of teacher, student and parent opinion scores for expectation factor by school in percent (principal has high expectations)

		Improving schools	Maintaining/declining schools
		Exp[a]	Exp[a]
Teachers	(N)	45	46
Always		7.0	4.2
Usually		45.4	44.6
About half		39.1	44.6
Seldom		5.6	6.5
Never		3.3	0.0
Students	(N)	41	42
Always		27.2	12.7
Usually		25.2	39.7
About half		37.8	43.7
Seldom		9.4	3.3
Never		0.5	0.7
Parents	(N)	35	34
Always		5.0	2.0
Usually		55.2	31.5
About half		23.4	42.1
Seldom		12.7	15.5
Never		8.5	6.2

[a]Expectation factor for mastery of the basic objectives of the curriculum.

Teachers, students and parents from both improving and maintaining/declining schools usually feel about the same as expected of teachers and students by their principals. Thus, when the level of expectations for student and teacher performance is examined, none of the principals emerge as having outstandingly higher expectations for their students and teachers ($Q.:_{4a}$) (Table 19).

The final factor considered in this section of the data analysis was the amount of emphasis put on the assessment of pupil progress by the principals. To provide appropriate comparisons, the types of testing procedures used by classroom teachers were subgrouped into four categories: 1) teacher-made tests, 2) teacher judgment, 3) publishers' tests and standardized tests (Table 20).

Table 20. Summary of New York school improvement teacher questionnaire results for the principal's ongoing assessment of student progress factor by school in percent

Schools	(N)	Testing procedure used			
		Teacher-made	Teacher judgment	Publisher's tests	Standardized tests
Improving	3				
School A		61.0	38.8	55.6	83.3
School B		66.7	38.8	44.4	88.9
School C		50.0	50.0	38.8	94.4
Total average		59.2	42.5	46.3	88.9
Maintaining/ declining	3				
School D		66.7	33.3	33.3	88.9
School E		87.5	56.3	25.0	87.5
School F		85.7	50.0	50.0	92.9
Total average		80.0	46.5	36.1	89.8

The principals from the improving schools did not, as postulated, rely on the results of standardized and teacher-made tests more than principals from the maintaining/declining schools. In fact, the opposite occurred. By averaging the total responses of the teachers in connection with teacher-made and standardized tests, a greater percentage of teachers (84.9 percent) from maintaining/declining schools emerge who use these tests to make decisions about instructional strategies than teachers (74.1 percent) from improving schools ($Q._{5a}$) (Table 20). In a more detailed examination of the data, however, it is revealed that responses by teachers (46.3 percent) from improving schools regarding the use of publishers' tests exceeded those by teachers (36.1 percent) from maintaining/declining schools by more than ten percent. These data were then submitted to a chi-square test for significance (see Table 22).

Continuing an examination of the assessment of the student progress factor, data were collected by logging the actual amount of time spent by each principal who evaluated student progress. This examination provided evidence which adds moderate support to the hypothesis that principals from improving urban high schools will put more emphasis on the assessment of students' progress than principals from maintaining/declining urban high schools (Table 21).

Principals from the improving high schools spent slightly more time (18 percent) on the evaluation of student progress than did the principals (15 percent) from maintaining/declining high schools. But

Table 21. Summary of principals' critical work activities time analysis for the assessment of student progress factor in percent of hours

CWA	Improving schools			Total average hours	Maintaining/ declining schools			Total average hours
	A	B	C		D	E	F	
Evaluates student progress	8.0	5.0	5.0	6.0	2.0	10.0	3.0	5.0

again, as in previous cases, this did not represent a marked difference. (Table 21).

From the work of Edmonds (29) centered on the New York City Schools, it was discovered that principals behave differently in improving schools than they do in maintaining/declining schools (i.e., instructional emphasis, expectations, use of tests, etc.). In the present study where proportional differences in the responses of teachers from improving and maintaining/declining schools were close to or exceeded ten percent, a chi-square test to determine significance was used. The unit of analysis was the number of teachers. Proportional differences occurred in five instances ($Q.:_{2a}$, $Q.:_{3b}$, $Q.:_{3c}$, $Q.:_{4a}$, and $Q.:_{5}$). The examination of these five questions by chi-square with cross-tabbing to produce contingency tables (see Appendix F, Tables F.2 through Table F.6 and Table 22) capsulizes these data.

Of the five criteria tested, only two of the effectiveness factors were rejected at the .05 level of significance (Table 22). Therefore, it may be stated that teacher satisfaction in the urban high school is

Table 22. Chi-square summary analysis on effectiveness of principal performance by effectiveness factors

	X^2	df	Probability
Factor 1 (Instructional emphasis)	1.66	1	.20
Factor 2 (School-wide discipline)	.02	1	.89
Factor 3 (Teacher satisfaction)	8.91**	1	.01
Factor 4 (Expectation of students)	7.26*	2	.03
Factor 5 (Assessment of student progress)	2.18	3	.54

*Probability < .05.

**Probability < .01.

dependent upon the leader behavior of the principal ($Q.:_{3c}$) and that student achievement in urban high schools is associated with the emphasis by the principal that all students can master the basic objectives ($Q.:_{4a}$).

Eight key areas of administrative competency

Data analyzed in the previous section regarding the determinants of effective schools were obtained via observations, interviews and questionnaires. The data were then presented descriptively (and with chi-square in those instances where proportional differences of more than ten percent resulted).

Perceptions of priority performance The first hypothesis of this section investigated the differences in the perceptions of teachers, principals and superintendents regarding the priority performance of principals. Table 23 revealed that superintendents had higher priorities (6.02) than principals (5.79) and principals had higher priorities than teachers (5.09).

To determine if the mean ratings of teachers, principals and superintendents on a particular key area were significantly different when school type was considered, the mean ratings from Table 23 were subjected to t-test analysis. The findings of this analysis are summarized in Table 24.

Of the eight key area criteria, only one exceeds the critical area set for .05 level of significance (Table 24). This is key area $PPROV^{d}$ which indicates that there is a significant difference in the mean rating of superintendents representing improving schools and those representing maintaining/declining schools in the key area of providing materials, equipment and facilities, such as would occur less than five times out of one hundred. Since the computed t-values for the comparisons of teachers and principals from improving and maintaining/declining schools did not reach the established level of significance, the remaining null hypotheses ($HO:_{1a}$ - $HO:_{1f}$, $HO:_{4a}$ - $HO:_{4f}$, $HO:_{7a}$- $HO:_{7c}$, $HO:_{7c}$, and $HO:_{7f}$) could not be rejected and thus remain tenable.

Since the t-values point to a significant difference between respondents' mean ratings when school types are compared (Table 24), an examination of the mean ratings (from Table 23) would indicate which

Table 23. Means of perception ratings obtained on the ACRS of the principal's priorities by school classification

Classification	(N)	ACRS key areas of competency			
		PGOAL[a] Mean	PSTAF[b] Mean	PALLO[c] Mean	PPROV[d] Mean
Teachers	103				
Improving		5.32	5.34	5.16	4.67
Maintaining/declining		5.41	5.16	5.13	4.93
Total average rating		5.37	5.25	5.15	4.80
Principals	6				
Improving		6.58	5.33	5.78	5.80
Maintaining/declining		6.50	6.50	5.89	5.67
Total average rating		6.54	5.92	5.84	5.74
Superintendents	3				
Improving		6.63	6.00	5.33	4.70
Maintaining/declining		6.75	6.50	6.00	6.40
Total average rating		6.69	6.25	5.67	5.55

[a]Goal setting.

[b]Staffing.

[c]Allocating time and space.

[d]Providing materials, equipment and facilities.

[e]Coordinating noninstructional services.

[f]Developing school-community services.

[g]Developing inservice training.

[h]Evaluating processes and products of instruction.

PCOOR[e] Mean	PDEV[f] Mean	PTRAIN[g] Mean	PEVAL[h] Mean	Total average mean rating
4.91	5.62	4.90	4.64	
5.17	5.52	4.90	4.67	
5.04	5.57	6.90	4.66	5.0925
4.83	6.25	5.61	4.58	
5.50	6.50	6.00	5.25	
5.17	6.38	5.81	4.92	5.7900
5.50	5.88	5.08	5.00	
6.50	6.75	6.83	6.50	
6.00	6.32	5.96	5.75	6.0238

Table 24. Comparisons of key area competency priority ratings by role classification using t-tests

Classification	(N)	Key area competency comparisons (t-values)							
		PGOAL[a]	PSTAF[b]	PALLO[c]	PPROV[d]	PCOOR[e]	PDEV[f]	PTRAIN[g]	PEVAL[h]
Teachers	103	-0.41	0.75	0.12	-1.03	-0.99	0.46	0.02	-0.10
Principals	6	0.28	-2.98	-0.14	0.21	-1.11	-0.87	-0.48	-2.00
Superintendents	3	-1.00	-0.50	-2.00	-17.00*	-1.00	-1.40	-4.20	0.00

[a] Goal setting.

[b] Staffing.

[c] Allocating time and space.

[d] Providing materials, equipment and facilities.

[e] Coordinating noninstructional services.

[f] Developing school-community services.

[g] Developing inservice training.

[h] Evaluating processes and products of instruction.

* Probability < .05.

Table 25. Summary of multiple comparisons of key area priority means by school classification indicating most and/or least important principal competency

Classification	Most important	Least important
Teachers		
Improving	PGOAL/PSTAF/PDEV	PPROV/PTRAIN/PEVAL
Maintaining/declining	PGOAL/PDEV	PPROV/PTRAIN/PEVAL
Principals		
Improving	PGOAL/PDEV	PCOOR/PEVAL
Maintaining/declining	PGOAL/PSTAF/PDEV	PCCOR/PEVAL
Superintendents		
Improving	PGOAL	PPROV
Maintaining/declining	PGOAL/PDEV/PTRAIN	PALLO

Note: PGOAL = Priority/Goal setting, PALLO = Priority/Allocating time and space, PPROV = Priority/Providing materials, equipment and facilities, PCOOR = Priority/Coordination noninstractional services, PDEV = Priority/Developing school-community services, PEVAL = Priority/Evaluating processes and products of instruction, PSTAF = Priority/Staffing, PTRAIN = Priority/Developing inservice training.

key area or combination of key areas was rated as high (most important) or low (least important) (Table 25).

In most of the cases, key areas were not found to be significantly different (Tables 23, 25). When such cases occurred, multiple key areas were reported as a group as either most or least important.

When preference for a key area is examined using school type as the classification, the key area of "goal setting" did emerge, in combination

and singularly, as the most important task of principals in improving as well as maintaining/declining schools. Further examination of the least important key area indicates that in combination with various other key areas, "evaluating processes and products of instruction" did emerge as the least important key area. However, when the priorities of the superintendents representing improving schools were examined, "providing materials, equipment and facilities" was singularly the least important key area and "goal setting" emerged singularly as the most important key area. On the other hand, superintendents representing maintaining/declining schools saw the allocation of time and space as the single least important task of principals.

Perceptions of actual performance Table 26 identifies the mean ratings for each group of respondents on each of the eight measures of actual performance of principals. On a scale of one to seven, the principals rated themselves higher in their performance (5.24) as compared to teachers (4.28) and superintendents (5.14). It is interesting to note that the teachers from the maintaining/declining schools generally rated their principals higher in all categories than did their counterparts from the improving schools. As expected, both the principals and superintendents of improving schools ranked the principals' performance higher than did their counterparts from maintaining/declining schools. Teachers from both classification of schools felt that principals spent more time developing school-community services and less time evaluating processes and products of instruction. The principals agreed that they spent less time on evaluating processes of instruction but felt that they

Table 26. Means of perception ratings obtained on the ACRS of the principal's actual performance by school classification

Classification	(N)	ACRS key areas of competency			
		AGOAL[a] Mean	ASTAF[b] Mean	AALLO[c] Mean	APROV[d] Mean
Teachers	103				
Improving		4.29	4.35	4.24	3.94
Maintaining/declining		4.69	4.52	4.29	4.30
Total average rating		4.49	4.44	4.27	4.12
Principals	6				
Improving		6.25	4.83	6.00	5.27
Maintaining/declining		5.50	4.67	5.44	4.12
Total average rating		5.88	4.75	5.72	4.70
Superintendents	3				
Improving		5.25	5.42	5.44	5.20
Maintaining/declining		5.42	4.92	5.22	4.73
Total average rating		5.34	5.17	5.33	4.97

[a]Goal setting.

[b]Staffing.

[c]Allocating time and space.

[d]Providing materials, equipment and facilities.

[e]Coordinating noninstructional services.

[f]Developing school-community services.

[g]Developing inservice training.

[h]Evaluating processes and products of instruction.

ACOOR[e] Mean	ADEV[f] Mean	PTRAIN[g] Mean	AEVAL[h] Mean	Total average mean rating
4.14	4.54	3.40	3.90	
4.50	4.81	4.32	4.20	
4.32	4.68	3.86	4.05	4.2800
5.33	5.83	5.56	4.67	
5.50	5.67	4.89	4.42	
5.42	5.75	5.23	4.55	5.2413
5.00	5.25	5.11	5.08	
5.33	5.33	4.94	4.67	
5.17	5.29	5.03	4.88	5.1468

spent more time on setting goals. The superintendents from both classification of schools agreed with the principals.

Although there were observable differences, the results of t-test procedures revealed that there were no significant differences in the area on ratings of actual principal performance (see Appendix F, Table F.1).

Discrepancies in performance To complete the examination of principal competency, the discrepancy or difference between the priority and the actual performance ratings by the principals, teachers and superintendents were considered. As in the previous section, respondents were classified by role according to school type and measured in eight key areas of responsibility. Using this criterion, means for respondents' ratings on each key area of responsibility were generated (Table 27).

It can be seen that the discrepancies are lowest for the principals (mean of .5763), followed by teachers (.9112), and then superintendents (.9300). This is to say that there is less of a difference in the principals' opinions between the desirable and their actual performance than there is for teachers or superintendents, with the latter being less satisfied.

Discrepancies in each of the eight key areas are of even greater interest. The greatest discrepancies between the priority and the actual performance as seen by teachers are in the area allocating travel space (1.08), school-community service (1.05), goal setting (.99), and staffing (.97). Superintendents' ratings produced the greatest discrepancies as

Table 27. Means of discrepancy ratings obtained on the ACRS by school classification

Classification	(N)	ACRS key areas of competency			
		DGOAL[a] Mean	DSTAF[b] Mean	DALLO[c] Mean	DPROV[d] Mean
Teachers	103				
Improving		1.16	1.18	1.22	.81
Maintaining/declining		.82	.75	.94	.77
Total average rating		.99	.97	1.08	.79
Principals	6				
Improving		1.00	.50	-.67	.53
Maintaining/declining		1.00	1.83	.44	1.53
Total average rating		1.00	1.17	-.12	1.03
Superintendents	3				
Improving		1.75	1.75	.33	-.20
Maintaining/declining		1.25	1.25	.00	1.00
Total average rating		1.50	1.50	.165	.40

[a]Goal setting.

[b]Staffing.

[c]Allocating time and space.

[d]Providing materials, equipment and facilities.

[e]Coordinating noninstructional services.

[f]Developing school-community services.

[g]Developing inservice training.

[h]Evaluating processes and products of instruction.

DCOOR[e] Mean	DDEV[f] Mean	DTRAIN[g] Mean	DEVAL[h] Mean	Total average mean rating
.93	1.30	.99	.84	
.85	.80	.62	.57	
.89	1.05	.81	.71	.9112
-.75	.63	.06	-.08	
.00	.83	1.11	1.25	
-.38	.73	.59	.59	.5763
1.00	1.00	.42	.75	
.50	1.50	1.83	1.75	
.75	.75	1.125	1.25	.9300

seen in the areas of goal setting (1.50), staffing (1.50), evaluating processes and products of instruction (1.25), and inservice training (1.12). The principals' self ratings show the largest discrepancy to be in the area of staffing (1.17), followed by providing materials, equipment and facilities (1.03), goal setting (1.00) and inservice training (.73). Of noteworthy interest is the fact that in all eight key areas of responsibility, the teachers from maintaining/declining schools were more satisfied with their principals' performances than their counterparts from improving schools.

T-test procedures were used to test for any significant differences in these mean ratings (Table 28). A summary of these t-values indicates that a significant difference was found in only one of 27 cases. This was in the area of allocating time and space ($HO:_{3c}$). Further examination of the principals' mean ratings (from Table 27) would indicate which key areas were rated as high (most important) or low (least important) as summarized in Table 29.

As with the previous examination of the eight key areas, classification by type of school and role of respondents, again indicates that in most cases some combination of key area of competency tended to be most important. One exception does exist. When principals were categorized by improving schools, the key area of "goal setting" tended to be the most important.

Finally, examination of the least important area of competency, when type of school was the criteria for classification, indicates that principals from both improving and maintaining/declining schools viewed

Table 28. Comparisons of key area competency discrepancy ratings by role classification using t-tests

Classification	(N)	Key area competency comparisons (t-values)							
		DGOAL[a]	DSTAF[b]	DALLO[c]	DPROV[d]	DCOOR[e]	DDEV[f]	DTRAIN[g]	DEVAL[h]
Teachers	102	1.26	1.46	.95	.15	.23	1.85	1.41	.97
Principals	6	0.00	-1.01	-10.00*	-1.95	-.47	-.24	-1.33	-1.24
Superintendents	3	2.00	0.00	0.00	0.00	1.00	-1.00	-1.89	0.00

[a]Goal setting.

[b]Staffing.

[c]Allocating time and space.

[d]Providing materials, equipment and facilities.

[e]Coordinating noninstructional services.

[f]Developing school-community services.

[g]Developing inservice training.

[h]Evaluating processes and products of instruction.

*Probability < .05.

Table 29. Summary of multiple comparisons of key area discrepancy means by school classification indicating most and/or least important principal competency

Classification	Most important	Least important
Teachers		
Improving	DPROV/DEVAL	DDEV
Maintaining/declining	DTRAIN/DEVAL	DCOOR/DALLO
Principals		
Improving	DGOAL	DALLO
Maintaining/declining	DSTAF/DPROV	DALLO
Superintendents		
Improving	DPROV/DTRAIN/DALLO	DGOAL/DSTAF
Maintaining/declining	DALLO/DCOOR	DDEV/DTRAIN/DEVAL

Note: DGOAL = Discrepancy/Goal setting, DALLO = Discrepancy/Allocating time and space, DPROV = Discrepancy/Providing materials, equipment and facilities, DCOOR = Discrepancy/Coordinating noninstructional services, DDEV = Discrepancy/Developing school-community services, DEVAL = Discrepancy/Evaluating processes and products of instruction, DSTAF = Discrepancy/Staffing, DTRAIN = Discrepancy/Developing inservice training.

"the allocation of time and space" as the least important key area of competency. In one instance, the key area of coordinating noninstructional services emerged, in combinations with the allocation of time and space, as the least important competency. This occurred in the case of maintaining/declining schools only.

In summary, the examination of descriptive data revealed proportional differences between teachers from improving schools and maintaining schools in their responses relating to instructional emphasis,

school-wide discipline, teacher satisfaction, expectation of students, and assessment of student progress. Of the five criteria then tested with the chi-square statistic, only teacher satisfaction and principals' expectations of students proved to be significant.

It was further shown that when six urban high school principals, the teachers in their buildings, and their superintendents prioritized the principal's job with regard to 32 competencies in eight key areas of responsibility, there were significant differences in only two cases. Superintendents believed that principals of improving urban high schools should spend significantly less time providing materials, equipment and facilities than their counterparts in maintaining/declining schools. Principals of improving schools were in closer agreement about allocating time and space being least important than principals of maintaining/declining schools.

The principals tend to rate the importance of the eight areas of their job higher than teachers or superintendents, and they also rated their performance higher than the other two groups. The discrepancies between the importance of each key area and the principals' performances in that area were greatest as viewed by superintendents, followed by those of the teachers. Teachers in maintaining/declining schools were more satisfied with their principals' performances in all eight key areas than teachers in the improving schools.

CHAPTER III. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary of Findings

The major problem for this study was to ascertain if certain behaviors of urban high school principals or school variables have a relationship to the achievement of students. Before behaviors or opinions could be examined, however, schools had to be classified. To classify schools, a statistical regression technique was used to measure achievement data from students in six St. Louis Public High Schools, grades nine through ten. Given certain scores at the beginning of the school year, for example, statistical procedures were used to project an end of the year score. Then the actual results were compared to the projections for each school to determine whether the school was doing better or worse than other schools with the same beginning scores. Schools were ranked according to the amount by which they exceeded (or fell below) their projected scores. Those schools which exceeded projections significantly were classified as improving and those that fell below statistical projections as maintaining/declining.

A crucial question related to the major problem of the present study was then raised. Would principals from schools rated as "improving" exhibit common leadership behaviors and show similar instructional concerns as principals from maintaining/declining schools?

To address this question, descriptive data were gathered from 111 teachers, 80 students and 72 parents representing six urban innercity high schools. In all cases, respondents completed opinion inventories

designed to reveal individual opinions about whether or not five determinants of effective schools existed in their schools. These determinants as defined by Edmonds (29) consisted of: 1) leadership style, 2) school climate, 3) the monitoring of student achievement, 4) high student expectations, and 5) emphasis on instruction.

The second area of investigation included the examination of administrative competencies as perceived by teachers, principals and superintendents. For data analysis, this second area was divided into three parts and the findings were tested inferentially. First, the priority or ideal performances of the principals as perceived by the three respondent groups were analyzed. In the second part of the examination, the actual performances of high school principals were analyzed. Finally, in the third part of the present investigation, an analysis was made of the discrepancy ratings of the administrative competencies.

The instrument used to gather the data was the Administrative Competency Rating Scale (ACRS) which was administered to 103 teachers, six principals and three superintendents. The data were then key-punched and computer-analyzed in September, 1982 at the Iowa State University Computer Center.

At the outset of the present study, the analysis of variance technique was to be used in the data analysis. However, the number of respondents as well as the number of schools was too small to measure reliably so that technique could not be used. Rather, the t-test for data comparisons between the classification of schools was used. Results of this statistical procedure were used to determine if significant

differences existed in the behaviors of principals of schools classified as either "improving" or "maintaining/declining".

The findings of this study are classified in two ways, descriptively and inferentially. First, the descriptive findings indicate (where proportional differences of ten percent or more resulted, the data were treated with a chi-square statistic:

1. It appears that, generally, principals from urban high schools categorized as improving did not behave more assertively than principals from urban high schools classified as maintaining/declining. Proportional differences did appear in two determinants:
   a. Principals from schools classified as improving tended to support teachers more than principals from maintaining/declining high schools.
   b. Principals from maintaining/declining schools spent more time communicating the mission of the school to teachers, parents and students than principals from schools classified as improving.
2. There were no proportional differences between the perception of students or parents from either classification of schools regarding the five determinants of effective schools.
3. Principals from improving schools tended to support the improvement of instruction more than principals from maintaining/declining schools but did not actually get involved with the coordination of instruction. (A statistical analysis of these results indicated support of instruction by principals from improving schools was not significantly different from that of

their counterparts in maintaining/declining schools.)

4. In a comparison of emphasis on improving the school climate between the two classifications of schools, the data analysis revealed marked differences for two of the five subfactors, emphasis on school-wide discipline and teacher satisfaction. Further statistical analysis revealed that only teacher satisfaction was significantly emphasized more by principals of schools classified as improving.)
5. Although the majority of teachers from the maintaining/declining schools felt that their principals had moderate expectations for their students, a large percentage of the teachers from schools classified as improving felt that their principals had high expectations for students. (An inferential analysis corroborated the fact that a significant difference existed in favor of principals from improving schools regarding high expectations for their students.)
6. Principals from maintaining/declining schools tended to rely more on the results of standardized and teacher-made tests than principals from improving schools. Principals from improving schools tended to support the use of publishers' tests to plan and direct instructional strategies. (A test with the Chi-square statistical procedure did not prove the use of publishers' tests by teachers from improving schools to be significantly different from their use in maintaining/declining schools.)

The inferential findings indicate:

1. In measuring the priorities of principals, their competency in administrative performance and the discrepancy between the two as perceived by teachers, principals and superintendents no significant differences were found with the exception of two cases.
   a. Superintendents of improving high schools felt that principals should spent less time providing materials, equipment and facilities than their counterparts.
   b. Principals of improving schools were in closer agreement about allocating time and space than principals of maintaining/declining schools.
2. Principals tended to rate the importance of their duties higher than teachers or superintendents.
3. Principals tended to rate their own performance higher than their teachers or superintendents.
4. The discrepancies between the importance of each key area and the principals' actual performances in each area were greatest as viewed by the superintendents.
5. Teachers in maintaining/declining schools were more satisfied with their principals' performances than teachers in improving schools were with their principals.
6. It is noteworthy that on all of the priority and performance items examined, the ratings of principals in both kinds of schools were approximately the same.

Conclusions

Considering the data collected and analysis made in the present study, basic conclusions are offered regarding the determinants of effective urban high schools and the administrative performance of their principals. While analyzing data, it was found that no differences existed between the principals of maintaining/declining and improving urban high schools except in the way they emphasize teacher satisfaction and in their level of expectation for students. These two effectiveness factors were submitted to interential analysis and revealed significant differences which tended to support the postulates of Edmonds (29) that principals from improving urban schools will have high expectations for students and emphasize procedures to ensure teacher satisfaction.

Guided by global postulates drawn from Edmonds and Frederiksen (30) and Mortimore (80), it was expected that principals of improving urban high schools would exhibit a more assertive administrative style, put more emphasis on instruction and on assessing student progress than principals of maintaining/declining urban high schools. It was found, however, that these postulates could not be confirmed.

While statistical analysis did not show significant differences, a matter of practical significance did emerge. When raw scores were examined using percentages to rank responses, it was found that principals from improving urban high schools did tend to support teachers and emphasize discipline more than their counterparts from maintaining/declining schools. Although not significantly different, the principals from improving urban high schools generally exhibited a marked difference in

supporting the improvement of instruction as compared to the principals from the maintaining/declining schools.

A marked difference also occurred when comparing the data analysis of the amount of emphasis put on the assessment of pupil progress by the principals. The difference, however, was opposite of the one expected. Contrary to the postulates of Edmonds (29) and Brookover and Lezotte (14), a greater percentage of teachers from maintaining/decling urban high schools emerged who used standardized and teacher-made tests than teachers from improving urban high schools.

The inferential examination of data sought to determine if there existed a difference in the perceptions of teachers, principals and superintendents regarding the priorities and actual performances of urban high school principals. Of the eight key areas tested, only two significant differences were revealed. In contrast to the findings of McIntyre and Grant (66), superintendents of improving schools believed that their principals should spend significantly less time providing materials, equipment and facilities than their counterparts from maintaining/declining urban high schools. Principals of improving urban high schools had a significantly closer relationship between their priorities and actual performances on allocating time and space than principals from maintaining/declining urban high schools.

Although significant differences did not occur to the degree expected, preferences for key areas by the respondents were examined. Goal setting did emerge as the most important task of principals in both kinds of schools while evaluating processes and products of instruction

and the allocation of time and space emerged as the least important key areas.

The general conclusion is that teachers, principals and superintendents are by and large in agreement with what they would like to see in the ideal principal and what they actually see in the day-to-day activities of their principals.

Limitations

Research studies usually are confronted with circumstances that are limiting to their investigation. These situations may, or may not, have been foreseen before the study was undertaken. However, after a project is completed, these limitations become more obvious and it is then recognized that alternatives may have been taken to make valuable contributions to the study. As this study progressed, several limitations became apparent.

First, the procedure used for classifying schools in the present study introduced some limitations. Because the St. Louis Public schools had utilized the California Achievement Test for only two years to measure academic achievement, testing biases might have influenced achievement scores. Stronger conclusions could be drawn with more years of data. Second, the practice of rotating principals from school to school after so many years may have affected the results of the present study in a negative way. Three of the principals had only been in their buildings for three years which may not have been long enough to effect any positive changes. Third, because of concerns on the part of

teachers' unions detailed observations of classroom activities were not implemented as planned. To compensate, survey instruments were administered to measure classroom teaching techniques. Obviously, this procedure of gathering data is not as exacting as on-the-spot observation. Finally, the sample was taken entirely from teachers who volunteered to participate in the research and therefore, may have had a more positive disposition to the project. It may be assumed that this attitude would not generalize outside of the sample and may have influenced the findings of the present investigation.

Discussion

This research, which compared opinions and role perceptions of the urban high school principal among students, teachers, principals, parents and superintendents representing improving and maintaining/declining St. Louis City high schools, indicated that only the determinants labeled "high expectations for students" and "greater emphasis on teacher satisfaction by the principal" associates with higher academic achievement of students.

Generally, respondents from the improving schools perceived the principal as being more concerned about teachers and students as revealed by the New York School Improvement Teacher Questionnaire. This can be attributed to the fact that principals from improving high schools were more accessible to parents, students and teachers, as well as supportive of teachers. The principals of high schools classified as improving were also more supportive of the improvement of instruction.

Why did the sample from the improving schools perceive the principal as providing a more orderly environment? All of the principals in the improving schools were former coaches and their former coaching experience may have influenced them to be a little more discipline-oriented than their counterparts from the maintaining/declining high schools. Further, each had a well-established record of leadership in their school community.

Following the pattern identified by Edmonds (29), that principals from improving urban high schools would have higher expectations for students and put more emphasis on improving the school climate, it was not surprising to find teachers who also had high expectations for students and felt good about their jobs. The remainder of the findings, however, tend to run counter to those of Edmonds. Where the former research indicated that principals of improving schools would rely more heavily on the results of standardized and teacher-made tests to make decisions about classroom organization and instructional strategies. The results of the present study did not indicate such was the case. Rather, but classifications of schools were similar in their use of standardized and teacher-made tests while teachers from improving schools showed a greater preference for using publishers' tests. One might speculate that this occurred because new textbooks were recently introduced into the reading curriculum accompanied by recommended testing procedures from the publishers.

In addition to suspected differences in the method of assessing

pupil progress, it was expected that marked differences would exist between principals of improving and maintaining/declining schools regarding emphasis on instruction. This absence of phenomena may be explained by the fact that there was underway a system-wide effort to encourage the use of lesson plans and to have principals monitor the use of those plans by making more visits to the classrooms.

Why did goal setting emerge as the single most important task of principals as perceived by teachers, principals and superintendents from both kinds of schools? Possibly, because in the past year there has been a city-wide effort to have every principal to develop school improvement plans as well as personal goals and objectives. This policy had been promoted by the general superintendent and adopted by the board of education.

Why in out of 24 comparisons made in the perceptions of actual principal performance were there no significant differences found between the two kinds of schools? It might be speculated that because of the desegregation plan many of the teachers had not been in the buildings for any length of time as a result of recent transfers; consequently, many of the teachers may not have been able to give accurate impressions of their principal's performance. Further, three of the principals, although not new in terms of experience, had only been in their buildings for three years. This may not have been enough time for these principals to significantly effect their schools in terms of improvement. Another possible explanation may be that the St. Louis Public Schools, by making a concerted effort to improve academic achievement in all buildings is

accomplishing its goal.

This first exploratory attempt at using the school effectiveness research to study high schools may have raised many more questions than it answered. Could it be that differences in principals, staffs and pupils make the work of Edmonds, Fredericksen, Brookover and Lezotte and others of very limited use in secondary school improvement? From the experience gained by conducting the present investigation, this writer would surmise that a number of elementary/secondary differences may be at work, viz., more departmentalization at the secondary level reducing consensus regarding goals and instructional emphasis, elementary principals who can lead better because they don't face the twin handicaps of the secondary principals (i.e., large numbers of teachers and lack of knowledge in specialized subject areas) and, perhaps most important, the differences in student needs from elementary schools through high school. Any educator who has had the opportunity to work in a high school after being an elementary teacher is struck by the great change wrought by adolescence!

Recommendations for Practice

Looking at this study and interpreting the findings opens up the discussion to conjecture. It is surprising to find that of the 18 questions examined in the qualitative portion of the present study, in only five instances could marked differences be observed between improving and maintaining/declining urban high schools. After further analysis by inferential statistics, only two significant differences resulted.

Interestingly, the inferential portion of the study yielded similar results. Of the 72 subhypotheses examined, significant differences resulted in only two instances. The similarity in schools might be explained by the fact that the implementation of a competency-based education plan is having its effect on student achievement. On the other hand, the results of the present study could be making a fine distinction between effective principal leadership and school effectiveness. The question is posed, which comes first, effective principals or effective schooling? In the present study extensive examination was made of principal behavior with less emphasis on school effectiveness. If the argument is true that school effectiveness emanates from the classroom, then a more refined approach to studying classroom strategies and methodologies should yield significant differences between the two classifications of schools. To accomplish this, teacher evaluators need to be trained in data gathering techniques.

Additionally, a thorough understanding of, and dialog concerning the urban high school teacher's role should be emphasized among the total school community, which includes students, teachers and superintendents. Through this understanding perhaps a clearer distinction would emerge between which causes effective schools, teachers or principals.

Based on the findings of the present study, if urban high schools principals are interested in carrying out the task that their teachers feel are the most important they will: 1) work on developing school-community services, 2) work with their staffs in developing school unit

goals and objectives to guide instruction, and 3) assign or reassign instructional staff to optimize conditions for learning. Superintendents also saw these same three key areas as being the most important responsibilities of urban high school principals. In that the findings revealed that principals rated themselves higher in their actual performance than their superintendents or teachers, it also might be wise for urban high school principals to get more feedback from both their superordinates as well as their subordinates.

Finally, it is interesting to note that the greatest discrepancy was found in the key area which principals, teachers and superintendents felt was the most important, that of goal setting. Based on the findings, urban high school principals might profitably spend less time on the scheduling of students and placement of teachers and more time on setting goals and supporting the improvement of instruction.

Recommendations for Further Research

This study was an effort to investigate those behaviors of urban high school principals that could be identified as effective in relation to student outcomes.

This study has in addition to addressing some important issues regarding effective urban high schools has raised some crucial questions. Should effective school research defined by this study as the study of teacher performance and effective leader behavior be studied as separate entities? For this examination, it would appear that further work needs

to be done in studying the effective teaching strategies and methodologies in addition to that of effective leader behaviors.

Another suggestion for consideration might be the replication of the present study with the added dimension of in-depth classroom observations and the study of student achievement data over a long period of time. Thus, investigators by nature of circumstances were forced to use only two years of achievement data, which also determined to a large degree the regression methodology used to classifying the schools. Perhaps a longer period of study would allow for other means to classify the improving and maintaining/declining schools, which would certainly satisfy those critics who see instability and inherent error in the regression methodology. There might be a better means to also control for gains arising from changes in student body compositions.

With more research now being conducted in urban high schools, perhaps the time is right for a study to be conducted in grades K-12 to see if there are any changes from urban elementary to urban secondary schools. The idea of comparing effective urban innercity schools to that of suburban schools would also be an invaluable study. Would the effective urban-innercity model prove as valid in suburban schools?

While current research on effective principals has located an important relationship between leadership and school effectiveness in elementary schools, future research meeting the standards suggested here with high schools could substantially improve both the practices of school leadership and the theory which supports it.

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ACKNOWLEDGMENTS

This study would not have been possible without the support and influence of my family, friends, colleagues and students. A grateful acknowledgment goes to my parents, Glover and Bertha, my in-laws, Charles and Daisy, whose direction and encouragement have been a source of never-ending strength; to my advisor, Richard Manatt, whose wisdom served as a guiding light and my committee, Jim Sweeney, Harold McNabb, Julia Anderson, and Anthony Netusil, whose direction guided its completion; to Robert Wentz, whose support will always be remembered; to Julius C. Dix, whose support has been as that of a father to a son; to Rex Thomas, a new-found friend.

Finally, my immediate family deserves a special note of thanks. Only they understand and really appreciate the real sacrifices made to complete this task. A special thanks then to Robbie and Danny, my two champions, whose love and understanding have helped me to be a champion. And of all mentioned, a special note of thanks is reserved for my wife, Shirley, whose persistence, encouragement, and loving sacrifice gave me a reason to endure and to finally succeed. For this I will always be grateful.

APPENDIX A: COVER LETTERS

Dear Superintendent:

I am completeing research as part of my graduate studies at Iowa State University. I am interested in studying variables that may assist in improving, both the quality of instructional leadership and ultimately the level of student achievement in urban high schools.

To direct this research, I will need your assistance. I need to use (one; two; three) of your schools from which to gather my sample data. Given your approval, two of my study assistants will visit your school(s) during the third week of April, 1982. For parts of two days, they will interview your principal(s), your assistant principal(s) of instruction, and 25 teachers from each high school. Each principal will be asked to make available to my study assistants a schedule of the teachers' planning periods. Each teacher who will be randomly selected by the principal, will be interviewed on their planning period for approximately 15 minutes. At that time each teacher will be issued a packet containing 3 questionnaires to be completed and returned to the principal(s)' office(s) by May 7, 1982.

I would like to meet with 25 students randomly selected by the principal(s). Each student will be issued a packet with two questionnaires enclosed, one to be completed by the student and one for their parents to complete. Each student will be instructed to take their packets home to be completed and returned to the principal(s) by May 7, 1982.

You as the Superintendent will be asked to complete a questionnaire and agree to be interviewed. To assure confidentiality for you and your staff, a numerical code will be employed and will be removed before any data analysis is conducted. Any participant will be free to withdraw his/her consent and to discontinue participation in the project at any time without prejudice to them.

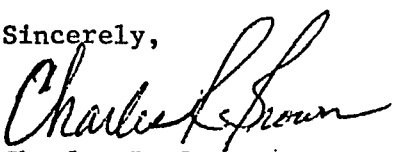
I will arrange to meet with you to answer any inquiries concerning these procedures. If you wish to receive a summary of this research, please complete the space for your name and address.

Please send to:

_____
(Superintendent's Name)

_____
(Address)

Sincerely,



Charles R. Brown
Graduate Student
Iowa State University

April 6, 1982

Dear Principal:

I am completing research as part of my graduate studies at Iowa State University. I am interested in studying variables that may assist in improving, both the quality of instructional leadership and ultimately the level of student achievement in urban/inner city schools.

To direct this research, I will need your assistance. Given your approval, two of my study assistants will visit your school during the third week of April, 1982. For parts of two weeks, they will interview you, your assistant principal of instruction, and 25 teachers; pass out questionnaires to the same 25 teachers as well as 25 students; and train your secretary to log your activities. Additional days will be spent observing the school's climate.

To insure confidentiality of your teachers, I need your permission to meet with your department heads. At this meeting each department head will be asked to participate as a teacher laison by identifying likely teacher participants and seeking to get their participation in the study. Individually numbered/coded packets containing three questionnaires will be given to the department heads to pass on to participating teachers. Instructions will be given to complete the questionnaires and return them in sealed envelopes to the department heads, who in turn, will give them to the researcher(s).

I will also need to administer a questionnaire to a cross-section of students selected at random from your attendence roster. On a day most convenient for you, I would have all 25 called together in a room designated by you to complete the questionnaire.

One of my research assistants will call you and your assistant principal of instruction to make an appointment to interview you both. Teachers will all be interviewed during their planning periods on a day designated by you.

Finally, your secretary will be trained by one of my assistants to log your activities for two weeks. Training takes one hour.

To assure confidentiality for you and your staff, a numerical code will be used and will be removed before data analysis is conducted. No participant will be identified by name and will be free to withdraw his/her consent and to discontinue participation in the project at any time. I will answer any inquiries about the study. If you wish to receive a summary of this research, please complete the space for your name and address.

Please send to:

_____
(Principal's Name)

_____
(Address)

Sincerely,

Charles R. Brown

Charles R. Brown
Graduate Student
Iowa State University

Dear Teacher:

I am completing research as part of my graduate studies at Iowa State University. I am interested in studying variables that affect student achievement.

To direct this research, I will need your assistance. Given that you help in this reseach effort, a study assistant will visit you on your planning period during the third week of April, 1982. At that time you will be interviewed for about 15 minutes. You will also be given a packet containing 3 questionnaires to be completed within a two week period of time and returned to your principal's office by May 7, 1982.

No request will be made, to your principal, to identify you. Because of this, confidentiality is assured. A numerical code for follow up procedures only will be employed. This code, however, identifies, positions as part of collective groups. This code will be removed before data analysis is conducted. You are free to withdraw your consent and to discontinue participation in the project at any time. Arrangements can be made through your principal to meet with me to answer any inquiries concerning these procedures.

Sincerely,

Charles R. Brown

Charles R. Brown
Graduate Student
Iowa State University

Dear Parent:

I am completing research as part of my graduate studies at Iowa State University. I am interested in studying variables that affect student achievement.

To direct this research, I will need your assistance. Your child has been randomly selected to fill out a survey form which has been designed to assess the instructional climate of his/her school. You also have been selected to fill out a similar form. I am asking that you be a cooperative participant as well give consent for your child to complete the enclosed survey form for students and for you to fill out the parent survey form.

No request will be made, to your child's principal to identify you or your child. Because of this, confidentiality is assured. A numerical code for follow up procedures only will be employed. This code will be removed before data analysis is conducted.

You are free to withdraw your consent and to discontinue participation in the project at any time. Arrangements can be made through your child's principal to meet with me to answer any inquiries concerning these procedures.

Sincerely,

Charles R. Brown

Charles R. Brown
Graduate Student
Iowa State University

APPENDIX B: LETTERS OF PERMISSION

SAINT LOUIS PUBLIC SCHOOLS

Office of
The Superintendent of Schools

November 13, 1981

Chancellor Frank J. Macchiarola
New York City Public Schools
131 Livingston Street
Brooklyn, New York 11201

Dear Frank:

As a follow-up to our recent conference of University/Urban Schools National Task Force, I wanted to let you know that I appreciated your presentation. We have a small project under way in our school system funded by The Danforth Foundation using some of the basic concepts you discussed in our meeting, and have had the pleasure of having Ron Edmonds work with our staff.

On a different topic, one of our outstanding young administrators, Charles R. Brown, is in the dissertation stage of his doctoral program at Iowa State University. His dissertation topic, "A Study of Effective Leader Behaviors of Urban High School Principals", has been approved by his committee. In pursuing some of the instrumentation for his study, he came across the work of your staff in a paper entitled "School Improvement Project: The Case Study Phase." He has talked with Dennis McCarthy and would like permission to use some of the instruments developed by your staff; i.e., the Teacher Questionnaire.

Therefore, I would respectfully request permission for Mr. Brown to secure copies of the aforementioned questionnaire. In making this request, we provide you with the assurance that the New York Public Schools will be given credit for the development of the instrument and that we will abide by the copyright restrictions.

In reviewing Mr. Brown's dissertation outline, it appears that the primary purpose of his study is to determine how administrative style associates with student achievement and to provide information which will help to define "strong leadership" in the urban high school setting. Mr. Brown's sample will be drawn from the St. Louis Public Schools and we are most anxious for him to proceed with his study.

I would like to thank you in advance for your consideration and support of this request. If you should need additional information relative to

Mr. Brown's study, I would be happy to provide whatever information you request.

I look forward to seeing you at the next University/Urban Schools National Task Force meeting.

Sincerely,

Robert E. Wentz
Superintendent of Schools

REW:rec
cc: Dr. Rosalyn Oratz
Dr. Dennis P. McCarthy
Mr. Charles R. Brown

BOARD OF EDUCATION
OF THE CITY OF NEW YORK
110 LIVINGSTON STREET
BROOKLYN, N.Y. 11201

FRANK J. MACCHIAROLA
CHANCELLOR

Copy to (letter)
Stodghill
DeBlauw

December 15, 1981

Mr. Robert E. Wentz
Superintendent of Schools
St. Louis Public Schools
911 Locust Street
St. Louis, Missouri 63101

Dear Mr. Wentz:

I am pleased to grant the St. Louis Public Schools permission to use the school assessment instruments developed by the New York City School Improvement Project. Your cooperation in following the copyright requirement and acknowledging the New York City Public Schools for the design of the instruments is appreciated.

Good luck to you in your implementation of the effective schools research.

Sincerely,

Chancellor

FJM:cp
Attachment
cc: R. Halverson
T. Minter
R. Oratz
D. Wirtz
D. McCarthy

Foy H. Moody High School

1818 Trojan Drive Corpus Christi, Texas 78416

Ed Grant, Principal
F. Lucido, Administrative Assistant

A.C. Guerrero, 1st. Assistant Principal
C. Yanez, 2nd. Assistant Principal

August 9, 1982

Mr. Charles Brown
951 Abbeville Dr.
St. Louis, Missouri 63130

Dear Mr. Brown:

It was nice talking to you concerning your work on your dissertation. I am glad to give permission for you to use my instrument in your work.

If I can be of further assistance, please let me know.

Sincerely,

E A Grant

E. A. Grant

jlh

APPENDIX C: INSTRUMENTS USED TO COLLECT DATA

Table 1

Spaces:	Categories			
	A Adequacy for normally intended purpose	B Condition maintenance (repairs)	C Cleanliness	D Attractiveness
I Building entrances				
II Stairwells				
III Halls				
IV Classrooms				
V Student bathrooms				
VI Library				
VII Auditorium				
VIII Gym				
IX Student Lunchroom				

X Teacher's cafeteria				
XI Main office				
XII Outdoor play areas				
XIII Landscaping				
XIV Other _____				
XV Other _____				
XVI Other _____				

Building and Grounds Observational Assessment

Directions: Place the following information in the appropriate columns below:

-the Roman numerial of the particular space (Building entrances=I, Stairwells=II, etc.).
-the letter of the category (Adequacy=A, Maintenance=B, etc.) in which a rating of "fair" or "unsatisfactory" was given.
-the rating given (fair=2, unsatisfactory=1).
-an explanation for the rating given.

Table 2

Space	Category	Rating	Explanation of Rating

Building and Grounds Observational Assessment

Directions: Indicate the particular space being used in an unusual, innovative or other than normally intended fashion.

Describe the manner in which the space is presently being used and discuss, in your opinion, whether this is a positive or negative adaptation of the space.

Table 3

Space	Present Use of Space	Opinion of Adaptation

PURPOSE

The purpose of this survey is to obtain information about the perceptions of teachers, principals, and superintendents concerning the importance of certain competencies of high school principals in the area of instructional supervision and perceptions of these same groups as to the performance of principals in instructional supervision.

PART 1 -- DIRECTIONS (Yellow Sheets)

At the end of each performance statement, you will find a set of numbers in descending order from 1 to 7.

In Part 1, please circle the number that best describes your feeling toward the importance of that performance factor in the area of instructional supervision for the principal in your high school.

The closer your circled number is toward either end of the numbers, the greater the intensity of your feelings in the direction of the high importance or low importance of that performance factor.

For the validity of this study, it is requested that you be completely frank in your responses. Procedures to be used will be such that no one, including the researcher, will know which responses came from a particular person.

Example: Your responses should appear similar to this:

7 6 5 4 3 (2) 1

7 6 5 4 (3) 2 1

(7) 6 5 4 3 2 1

7 6 (5) 4 3 2 1

Please respond to each item, but do not circle more than one number per line.

After completing Part 1, please continue to Part 2 (Blue Sheets).

Directions: Enter the number of minutes which has been noted on the informal notes. Circle the number if these minutes are outside of the normal work day.

MANAGEMENT STATUS REPORT FORM (SA-1)

Month of _____ 19__

Name _____

School _____

Position _____

No.	CRITICAL WORK ACTIVITY Description	DATES AND DAYS OF THE MONTH	Total Min.	Total Hours	Circle Time Min.	Circle Time Hr.
	I. Public Relations					
1)	Maintains School-Community Relations					
2)	Supports Teachers					
3)	Supervises Student Personnel					
	II. Instructional Leadership					
4)	Assists w/ Instruc. Strat Which Emphasize Stu. Ach.					
5)	Coordinates Instruc. Program					
6)	Evaluates Stu. Progress					
7)	Promotes Professional Activities					
8)	Supports Improvement of Instruction					
	III. Management					
9)	Provides Orderly Environment					
10)	Maintains Physical Facilities					
11)	Performs Administrative Duties					

Code_____

Directions: Circle the number to the right of each statement that most nearly expresses your opinion as to the degree of importance for the performance described in the statement.

PART 1

As the instructional leader, the principal:	High Importance						Low Importance
1. Allocates materials, equipment, and facilities to accomplish instructional goals.	7	6	5	4	3	2	1
2. Organizes and coordinates the noninstructional services to optimize the accomplishment of instructional goals.	7	6	5	4	3	2	1
3. Guides the development of instructional units to implement unique goals and objectives.	7	6	5	4	3	2	1
4. Collects, organizes, analyzes, and interprets data concerning the performance of teachers.	7	6	5	4	3	2	1
5. Explains school and school district instructional policies and procedures and reports instructional problems and achievements to the school constituency.	7	6	5	4	3	2	1
6. Articulates goals and objectives for sub-units within the school.	7	6	5	4	3	2	1
7. Coordinates the redesigning of instructional facilities to accomplish instructional goals	7	6	5	4	3	2	1
8. Leads in-service training sessions for teachers.	7	6	5	4	3	2	1
9. Collects, analyzes, organizes, and interprets data concerning students performance	7	6	5	4	3	2	1
10. Inventories the changing needs for materials, equipment, and facilities to accomplish instructional goals.	7	6	5	4	3	2	1
11. Directs the development or modification of instructional materials that are not available commercially.	7	6	5	4	3	2	1

PART 1, cont.

	High Importance						Low Importance
12. Collects, organizes, analyzes, and interprets data concerning other-than-teacher influences on learning.	7	6	5	4	3	2	1
13. Establishes communication with the school constituency for the purpose of assessing needs and setting broad instructional goals.	7	6	5	4	3	2	1
14. Recommends staff members for reemployment, promotion, or dismissal.	7	6	5	4	3	2	1
15. Inventories the changing needs for noninstructional services in order to accomplish instructional goals.	7	6	5	4	3	2	1
16. Trains other members of the professional staff to assume leadership roles in the in-service program.	7	6	5	4	3	2	1
17. Defines job requirements for each position in terms of instructional processes.	7	6	5	4	3	2	1
18. Directs the identification and selection of needed materials, equipment, and facilities for instruction.	7	6	5	4	3	2	1
19. Guides individual teachers toward selective participation in in-service training activities.	7	6	5	4	3	2	1
20. Assists in the recruitment and selection of personnel for instructional responsibilities.	7	6	5	4	3	2	1
21. Plans in-service training programs for teachers by relating performance data to school goals.	7	6	5	4	3	2	1
22. Assigns or reassigns instructional staff to optimize conditions for learning.	7	6	5	4	3	2	1
23. Organizes and coordinates in-service training programs so as to make maximally effective use of personnel, time, materials, space, and money.	7	6	5	4	3	2	1

PART 1, cont.

		High Importance						Low Importance
24.	Allocates time and space to various instructional purposes.	7	6	5	4	3	2	1
25.	Relates needs of students to school system goals.	7	6	5	4	3	2	1
26.	Assigns students to appropriate spaces and time units for instruction.	7	6	5	4	3	2	1
27.	Assesses the effectiveness of in-service training activities and programs.	7	6	5	4	3	2	1
28.	Inventories the changing needs for time and space for various instructional purposes.	7	6	5	4	3	2	1
29.	Communicates to the professional staff at school and district levels the feelings and desires of the school constituency.	7	6	5	4	3	2	1
30.	Collects, organizes, analyzes, and interprets data concerning former students.	7	6	5	4	3	2	1
31.	Defines goals and objectives that are unique to the school unit.	7	6	5	4	3	2	1
32.	Provides an adequate system for reporting students' performance to parents, prospective employers, higher educational institutions, and others.	7	6	5	4	3	2	1

PART 2 -- DIRECTIONS (Blue Sheets) PRINCIPAL

At the end of each performance statement, you will find a set of numbers in descending order from 7 to 1.

In Part 2, please circle the number that best describes your view of your performance on the performance statements.

Please evaluate yourself on the seven to one agree-disagree scale. As the self-evaluation will be anonymous, it is hoped that principals will be completely candid in marking their strengths and their weaknesses as they perceive them.

Your assistance is greatly appreciated.

PART 2 -- DIRECTIONS (Blue Sheets) SUPERINTENDENT

At the end of each performance statement, you will find a set of numbers in descending order from 1 to 7.

In Part 2, please circle the number that best describes your view of your high school principal's performance on the performance statements.

Please evaluate the principal on the seven to one agree-disagree scale. As the evaluation will be anonymous, it is hoped that superintendents will be candid in marking the strengths of their high school principals as they perceive them.

Your assistance is greatly appreciated.

PART 2 -- DIRECTIONS (Blue Sheets) TEACHER

At the end of each performance statement, you will find a set of numbers in descending order from 7 to 1.

In Part 2, please circle the number that best describes your view of the performance of your principal on the performance statements.

The closer your circled number is toward either end of the numbers, the greater the intensity of your feelings in the direction of how much you agree or how much you disagree that your principal is competently performing the described task.

When you complete the entire questionnaire, please place it in the envelope, seal the envelope, and leave it with your principal's secretary. Your assistance is greatly appreciated.

Code_____

PART 2

Directions: Circle the number to the right of each statement that most nearly expresses your opinion as to whether the statement realistically describes the performance of the principal.

As the instructional leader, the principal competently:	Strongly Agree						Strongly Disagree
1. Establishes communication with the school constituency for the purpose of assessing needs and setting broad instructional goals.	7	6	5	4	3	2	1
2. Collects, organizes, analyzes, and interprets data concerning the performance of students.	7	6	5	4	3	2	1
3. Assists in the recruitment and selection of personnel for instructional responsibility.	7	6	5	4	3	2	1
4. Defines job requirements for each position in terms of instructional processes.	7	6	5	4	3	2	1
5. Trains other members of the professional staff to assume leadership roles in the in-service program.	7	6	5	4	3	2	1
6. Recommends staff members for reemployment, promotion, or dismissal.	7	6	5	4	3	2	1
7. Explains school and school district instructional policies and procedures and reports instructional problems and achievements to the school constituency.	7	6	5	4	3	2	1
8. Coordinates the redesigning of instructional facilities to accomplish instructional goals.	7	6	5	4	3	2	1
9. Inventories the changing needs for noninstructional services in order to accomplish instructional goals.	7	6	5	4	3	2	1
10. Assigns or reassigns instructional staff to optimize conditions for learning.	7	6	5	4	3	2	1

PART 2, cont.	Strongly Agree						Strongly Disagree
11. Provides an adequate system for reporting students' performances to parents, perspective employers, higher educational institutions, and others.	7	6	5	4	3	2	1
12. Guides the development of instructional units to implement unique goals and objectives.	7	6	5	4	3	2	1
13. Organizes and coordinates in-service training programs so as to make maximally effective use of personnel, time, materials, space, and money.	7	6	5	4	3	2	1
14. Collects, organizes, analyzes, and interprets data concerning other-than-teacher influences on learning.	7	6	5	4	3	2	1
15. Directs the development or modification of instructional materials that are not available commercially.	7	6	5	4	3	2	1
16. Relates needs of students to school system goals and legal requirements.	7	6	5	4	3	2	1
17. Assigns students to appropriate space and time units for instruction.	7	6	5	4	3	2	1
18. Defines goals and objectives that are unique to the school unit.	7	6	5	4	3	2	1
19. Leads in-service training sessions for teachers.	7	6	5	4	3	2	1
20. Plans in-service training programs for teachers by relating performance data to school goals.	7	6	5	4	3	2	1
21. Communicates to the professional staff at school and district levels the feelings and desires of the school constituency.	7	6	5	4	3	2	1
22. Allocates time and space to various instructional purposes.	7	6	5	4	3	2	1
23. Organizes and coordinates the noninstructional services to optimize the accomplishment of instructional goals.	7	6	5	4	3	2	1

PART 2, cont.

		Strongly Agree						Strongly Disagree
24.	Inventories the changing needs for materials, equipment, and facilities to accomplish instructional goals.	7	6	5	4	3	2	1
25.	Collects, organizes, analyzes, and interprets data concerning the performance of teachers.	7	6	5	4	3	2	1
26.	Allocates materials, equipment, and facilities to accomplish instructional goals.	7	6	5	4	3	2	1
27.	Inventories the changing needs for time and space for various instructional purposes.	7	6	5	4	3	2	1
28.	Collects, organizes, analyzes, and interprets data concerning former students.	7	6	5	4	3	2	1
29.	Directs the identification and selection of needed materials, equipment, and facilities for instruction.	7	6	5	4	3	2	1
30.	Articulates goals and objectives for sub-units within the school.	7	6	5	4	3	2	1
31.	Assesses the effectiveness of in-service training activities and programs.	7	6	5	4	3	2	1
32.	Guides individual teachers toward selective participation in in-service training activities.	7	6	5	4	3	2	1

Thank you for your participation.

APPENDIX D: THIRTY-TWO COMPETENCY STATEMENTS

PRINCIPAL'S INSTRUCTIONAL LEADERSHIP COMPETENCIES

1. Relates needs of students to school system goals and legal requirements.
2. Defines goals and objectives that are unique to the school unit.
3. Guides the development of instructional units to implement unique goals and objectives.
4. Articulates goals and objectives for subunits within the school.
5. Defines the job requirements for each position in terms of instructional processes.
6. Assists in the recruitment and selection of personnel for instructional responsibilities.
7. Assigns or reassigns instructional staff to optimize conditions for learning.
8. Recommends staff members for reemployment, promotion, or dismissal.
9. Inventories the changing needs for time and space for various instructional purposes.
10. Allocates time and space to various instructional purposes.
11. Assigns students to appropriate spaces and time units for instruction.
12. Inventories the changing needs for materials, equipment, and facilities to accomplish instructional goals.
13. Allocates materials, equipment, and facilities to accomplish instructional goals.
14. Directs the identification and selection of needed materials, equipment, and facilities for instruction.
15. Coordinates the redesigning of instructional facilities to accomplish instructional goals.
16. Assists in the development or modification of instructional materials that are not available commercially.
17. Inventories the changing needs for noninstructional services in order to accomplish instructional goals.

18. Organizes and coordinates the noninstructional services in order to accomplish instructional goals.

19. Establishes communications with the school constituency for the purpose of assessing needs and setting broad instructional goals.

20. Explains school and school district instructional policies and procedures and reports instructional problems and achievements to the school constituency.

21. Provides an adequate system for reporting students' performances to parents, prospective employers, higher educational institutions, etc.

22. Communicates to the professional staff at school and district levels the feelings and desires of the school constituency.

23. Plans inservice training programs for teachers by relating performance data to school goals.

24. Guides individual teachers toward selective participation in inservice training activities.

25. Leads inservice training sessions for teachers.

26. Organizes and coordinates inservice training programs so as to make maximally effective use of personnel, time, materials, space, and money.

27. Trains other members of the professional staff to assume leadership roles in the inservice program.

28. Assesses the effectiveness of inservice training activities and programs.

29. Collects, organizes, analyzes, and interprets data concerning the performance of teachers.

30. Collects, organizes, analyzes, and interprets data concerning other-than-teacher influences on learning.

31. Collects, organizes, analyzes, and interprets data concerning the performance of students.

32. Collects, organizes, analyzes, and interprets data concerning former students.

APPENDIX E: EIGHT AREAS OF KEY RESPONSIBILITY

EIGHT AREAS OF KEY RESPONSIBILITY OF THE PRINCIPAL

	Areas of Key Responsibility	Competencies
I	The principal develops school unit goals and objectives to guide instruction.	1, 2, 3, 4
II	The principal allocates staff personnel to accomplish instructional goals.	5, 6, 7, 8
III	The principal allocates time and space to accomplish instructional goals.	9, 10, 11
IV	The principal develops and utilizes materials, equipment, and facilities to accomplish instructional goals.	12, 13, 14, 15, 16
V	The principal coordinates supporting noninstructional services in order to accomplish instructional goals.	17, 18
VI	The principal develops school-community relations to accomplish instructional goals.	19, 20, 21, 22
VII	The principal develops inservice training programs to improve instruction.	23, 24, 25, 26, 27, 28
VIII	The principal assesses the needs of the school unit and evaluates the processes and products of instruction in order to improve instruction.	29, 30, 31, 32

APPENDIX F: TABLES

Table F.1. Comparisons of key area competency actual performance ratings by role classification using t-tests

Classification	(N)	Key area competency comparisons (t-values)							
		AGOAL[a]	ASTAF[b]	AALLO[c]	APROV[d]	ACOOR[e]	ADEV[f]	ATRAIN[g]	AEVAL[h]
Teachers	102	-1.57	-.67	-.16	-1.24	-1.23	-1.06	-1.22	-1.02
Principals	6	1.57	.10	.74	1.26	-.25	.24	.72	.25
Superintendents	3	.19	.74	.32	.86	-.38	-.16	.28	.58

[a]Goal setting.

[b]Staffing.

[c]Allocating time and space.

[d]Providing materials, equipment and facilities.

[e]Coordinating noninstructional services.

[f]Developing school-community services.

[g]Developing inservice training.

[h]Evaluating processes and products of instruction.

Table F.2. Observed frequencies and expected frequencies for instructional emphasis factor

Obs. \ Exp.	1	2
.00	31.8 35	22.2 19
1.00	28.2 25	19.8 23

Table F.3. Observed frequencies and expected frequencies for emphasis on school-wide discipline factor

Obs. \ Exp.	1	2
.00	38.5 39	21.5 21
1.00	29.5 29	16.5 17

Table F.4. Observed frequencies and expected frequencies for emphasis on teacher satisfaction factor

Obs. \ Exp.	1	2
.00	45.5 51	8.5 3
1.00	40.5 35	7.5 13

Table F.5. Observed frequencies and expected frequencies for student expectation factor

Obs. \ Exp.	1	2	3
.00	6.8 11	30.4 30	16.8 13
1.00	6.2 2	27.6 28	15.2 19

Table F.6. Observed frequencies and expected frequencies for assessment of student progress factor

Obs. \ Exp.	1	2	3	4
.00	36.1 32	23.2 23	21.7 25	50.0 48
1.00	33.9 38	21.8 22	20.3 17	41.0 43

APPENDIX G: USE OF HUMAN SUBJECTS APPROVAL FOR RESEARCH

The Iowa State University Committee on the Use of Human Subjects in Research reviewed this project and concluded that the rights and welfare of the human subjects were adequately protected, that risks were outweighed by the potential benefits and expected value of the knowledge sought, that confidentiality of data was assured and that informed consent was obtained by appropriate procedures.